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Set      Items   Description
S1       45824   S SPINE? ? OR SPINAL? OR VERTEBRA? OR INTERVERTEBRA?
S2       11620   S FACET?
S3      285050   S PROSTHES? OR IMPLANT? OR ENDOPROSTHE? OR REPLACEMENT? OR ARTHROPLAST?
S4      205194   S REPLACEMENT? OR ARTIFICIAL
S5       48177   S (MINIMAL? OR LESS OR REDUCE? ? OR REDUCING OR REDUCTION OR "NOT" OR
NON)(3N)(INVASIV? OR TRAUMA? OR INTRUSIV?) OR (MINIMAL? OR ATRAUMATIC?)(3N)(ACCESS? OR
SURGERY? OR SURGICAL? OR SURGERIES OR PROCEDURE?) OR SMALL?(3N)(INCIS? OR CUT OR CUTS OR
CUTTING OR OPENING?)
S6      105981   S ACCESS?(3N)(DEVICE? ? OR INSTRUMENT? ? OR APPARAT? OR TOOL? ? OR
IMPLEMENT? ?) OR ENDOSCOP? OR CANNULA? OR CANULA? OR ARTHROSCOP? OR LAPAROSCOP? OR (ENDO
OR ARTHRO OR LAPARO)()(SCOPE? ? OR SCOPIC? OR SCOPY OR SCOPIES)
S7     3201800   S EXPAND? OR EXPANSION? OR WIDEN? OR BROADEN? OR ENLARG? OR INCREAS? OR
GREATER?
S8     6462601   S SIZE? ? OR WIDTH OR (CROSS OR X)()SECTION? OR DIAMETER? OR CIRCUMFERENC?
OR POSITION? OR RADIUS? OR CONFIGURAT?
S9      511112   S IC=(A61B? OR A61F? OR A61D? OR A61M?)
S10        201   S S2(5N)S3:S4
S11     253174   S S7(5N)S8
S12        381   S S1(10N)S6
S13          0   S S10 AND S11 AND S12 AND S5
S14          0   S S10 AND S5 AND S6 AND S11
S15          0   S S10 AND S6 AND S11
S16          6   S S10 AND S6
S17          0   S S10 AND S5 AND S11
S18         15   S S12 AND S11 AND S5 AND S3:S4
S19         15   S S18 NOT S16
S20          5   S S12 (S) S11 (S) S5
S21          1   S S20 NOT (S16 OR S19)
S22         27   S S12 AND S11 AND S5
S23         11   S S22 NOT (S16 OR S19 OR S21)
S24         23   S S1:S2 AND S3:S4 AND S5 AND S6 AND S11
S25          8   S S24 NOT (S16 OR S19 OR S21 OR S23)

? show files
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[File 350] **Derwent WPIX** 1963-2006/UD=200709

**File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit http://www.dialog.com/dwpi/.*

[File 347] **JAPIO** Dec 1976-2006/Oct(Updated 070201)

16/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0015806992 *Drawing available*
WPI Acc no: 2006-363266/200637
XRPX Acc No: N2006-307007
Prosthetic implant for minimally invasive facet joint hemi-arthroplasty has blades integral with convex inner textured surface, and pair of teeth descending from front edge of convex top portion
Patent Assignee: ORTHOPEDIC DEV CORP (ORTH-N)
Inventor: PETERSEN D A

Patent Family (2 patents, 111 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060111781	A1	20060525	US 2004992746	A	20041122	200637	B
			US 2005177467	A	20050708		
WO 2006058018	A2	20060601	WO 2005US42349	A	20051121	200637	E

Priority Applications (no., kind, date): US 2004992746 A 20041122; US 2005177467 A 20050708

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060111781	A1	EN	11	8	C-I-P of application	US 2004992746
WO 2006058018	A2	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

Alerting Abstract US A1
NOVELTY - An inverted L-shaped metallic body has convex top and concave downwardly descending portions having highly polished exterior surfaces made from cobalt-chrome alloy. A concave lower surface is provided under the top portion, while a convex inner textured surface (18) is provided on the descending portion. Blades (20,22) are integral with the textured surface, while a pair of teeth (26,28) descends from the front edge of the top portion.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a system for mounting a prosthetic **implant** within a **facet** joint.
USE - For minimally invasive **facet** joint hemi-**arthroplasty**.
ADVANTAGE - Offers reduced morbidity, blood loss, time under anesthesia, risk, and recovery time. Minimizes

scarring that decreases the risk of failed back syndrome and improves revisions surgery outcome. Reduces risk of post-operative infection by significantly reducing operating room time and soft tissue destruction. Prolongs functional life of long segment fusions and disc replacement. Prevents preclusions of other surgical or non-invasive treatment options. Ensures high success rate by utilizing accepted procedures facilitated through an **arthroscopic** technique and resurfacing implant.
DESCRIPTION OF DRAWINGS - The figure shows a bottom left isometric view of the implant.
10 Prosthetic implant
18 Convex inner textured surface
20,22 Blades
26,28 Teeth

Title Terms /Index Terms/Additional Words: PROSTHESIS; IMPLANT; MINIMUM; INVADE; FACET; JOINT; HEMI; ARTHROPLASTY; BLADE; INTEGRAL; CONVEX; INNER; TEXTURE; SURFACE; PAIR; TOOTH; DESCEND; FRONT; EDGE; TOP; PORTION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-0002/44	A	I	F	B	20060101

US Classification, Issued: 623017110

File Segment: EngPI; ;
DWPI Class: P32

16/5/5 (Item 5 from file: 350) **Links**
Derwent WPIX

0014884626 *Drawing available*
WPI Acc no: 2005-232366/200524
Related WPI Acc No: 2004-571266; 2005-689803; 2007-055243
XRPX Acc No: N2005-191394
Percutaneous access device for minimally invasive spinal surgery, has elongated hollow tube with adjustment mechanism that regulates tube length within body cavity while maintaining constant tube length outside body cavity
Patent Assignee: CHIN K R (CHIN-I)
Inventor: CHIN K R

Patent Family (2 patents, 106 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050065517	A1	20050324	US 2003669927	A	20030924	200524	B
			US 2003518580	P	20031108		

			US 2004868075	A	20040615		
WO 2005072081	A2	20050811	WO 2004US36640	A	20041104	200553	E

Priority Applications (no., kind, date): US 2003669927 A 20030924; US 2003518580 P 20031108; US 2004868075 A 20040615

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050065517	A1	EN	33	21	C-I-P of application	US 2003669927
					Related to Provisional	US 2003518580
WO 2005072081	A2	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

Alerting Abstract US A1
NOVELTY - An elongated hollow tube, with a proximal end and a distal end, defines a working channel between the proximal and distal ends when placed within a body cavity. The hollow tube has an adjustment mechanism that regulates the tube length within body cavity while maintaining constant tube length outside the body cavity.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

a. a minimally invasive spinal surgery percutaneous system; and
b. a minimally invasive spinal surgery percutaneous method.

USE - For improving percutaneous access in minimally invasive spinal surgery e.g. laminotomy, laminectomy, foramenotomy, **facetectomy**, and discectomy, fusion, or disc **replacement** performed within patient's body cavity.
ADVANTAGE - Provides improvement beneficial to both patients and surgeons by improving visualization, decreasing risks of iatrogenic injuries to vital structures, decreasing length of hospitalization and associated costs, decreasing operative time, decreasing recovery time, and decreasing post operative pain. Enables length adjustment of minimal access portals either inside or outside the patient to account for varying depth of pathology within the body. Ensures easy connection of portals at sequential fixation points and simultaneous delivery of objects e.g. connecting devices or tools between fixation points even if fixation points are not in perfectly straight line.
DESCRIPTION OF DRAWINGS - The figure shows the top view of a patient's back with a pair of curved scissors placed through the portal of a percutaneous **access** improvement **device**.
70 Patient's skin
75 Lumbodorsal fascia
80 Spine
82b,82c Vertebrae

Title Terms /Index Terms/Additional Words: PERCUTANEOUS; ACCESS; DEVICE; MINIMUM; INVADE; SPINE; SURGICAL; ELONGATE; HOLLOW; TUBE; ADJUST; MECHANISM; REGULATE; LENGTH; BODY; CAVITY; MAINTAIN; CONSTANT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56			Main		"Version 7"
A61B-0017/00	A	N		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0019/00	A	N		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0019/00	C	N		R	20060101

US Classification, Issued: 606061000

File Segment: EngPI; ;
DWPI Class: P31

16/5/6 (Item 6 from file: 350) **Links**
Derwent WPIX

0014009907 *Drawing available*
WPI Acc no: 2004-191309/200418
XRPX Acc No: N2004-151715
Surgical light instrument for laminotomy, has retractor positionable within body of patient, and frictional engagement to maintain position of lighting unit having light source relative to retractor
Patent Assignee: BRANCH C L (BRAN-I); FOLEY K T (FOLE-I); FRANKS R (FRAN-I); ROEHM T E (ROEH-I); SDGI HOLDINGS INC (SDGI-N); SMITH M M (SMIT-I)
Inventor: BRANCH C L; FOLEY K T; FRANKS R; ROEHM T E; ROEHM T E I; SMITH M M

Patent Family (7 patents, 104 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004012617	A2	20040212	WO 2003US23770	A	20030730	200418	B
US 20040143169	A1	20040722	US 2002400562	P	20020802	200449	E
			US 2003633288	A	20030801		
AU 2003261296	A1	20040223	AU 2003261296	A	20030730	200453	E
EP 1545370	A2	20050629	EP 2003766977	A	20030730	200543	E

			WO 2003US23770	A	20030730		
KR 2005025196	A	20050311	KR 2005701899	A	20050202	200574	E
JP 2005534416	W	20051117	WO 2003US23770	A	20030730	200576	E
			JP 2004526222	A	20030730		
CN 1681431	A	20051012	CN 2003821201	A	20030730	200612	E

Priority Applications (no., kind, date): US 2003633288 A 20030801; US 2002400562 P 20020802

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004012617	A2	EN	12	4		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20040143169	A1	EN			Related to Provisional	US 2002400562
AU 2003261296	A1	EN			Based on OPI patent	WO 2004012617
EP 1545370	A2	EN			PCT Application	WO 2003US23770
					Based on OPI patent	WO 2004012617
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
JP 2005534416	W	JA	12		PCT Application	WO 2003US23770
					Based on OPI patent	WO 2004012617

Alerting Abstract WO A2

NOVELTY - The instrument has a retractor (14) positionable within a body (18) of a patient. The retractor has an inner wall surface defining a working channel. A lighting unit includes a light source (12) along a wall unit. The wall unit is positionable along the inner wall surface and frictionally engageable with the inner wall surface. The frictional engagement maintains a position of the lighting unit relative to the retractor.

USE - Used for illuminating surgical space during surgery e.g. laminotomy, laminectomy, foramenotomy, **facetectomy**, discectomy, positioning of interbody **implant**, positioning of intrabody implant, bone cutting and removal, tissue cutting and removal, and nerve root and tissue retraction.

ADVANTAGE - The frictional engagement maintains a position of the lighting unit relative to the retractor, thereby avoiding difficulty in maneuvering the instrument in the surgical space without increasing the surgical space through the portal.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a retractor and light delivery system.

12 Light source

14 Retractor

18 Body
22 Distal end
50 Light instrument

Title Terms /Index Terms/Additional Words: SURGICAL; LIGHT; INSTRUMENT; RETRACT; POSITION; BODY; PATIENT; FRICTION; ENGAGE; MAINTAIN; UNIT; SOURCE; RELATIVE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-001/06; A61B-019/00			Main		"Version 7"
A61B-0017/00	A	N		R	20060101
A61B-0017/34	A	N		R	20060101
A61B-0019/00	A	I		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/34	C	N		R	20060101
A61B-0019/00	C	I		R	20060101

US Classification, Issued: 600245000

File Segment: EngPI; EPI;
DWPI Class: S05; V07; X26; P31
Manual Codes (EPI/S-X): S05-G02C; V07-N03; X26-E; X26-G

?

19/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0016317520 *Drawing available*
WPI Acc no: 2007-033689/200704
Related WPI Acc No: 2005-038798; 2005-038799; 2007-033486
XRPX Acc No: N2007-025446

Method of delivering and positioning implant in intervertebral disc, involves compressing the implant, constraining implant with cannula, positioning the cannula to place implant in disc, and expanding the implant after release in the disc

Patent Assignee: GORENSEK B (GORE-I); KAVANAUGH S (KAVA-I); LAMBRECHT G H (LAMB-I); MOORE R K (MOOR-I)
Inventor: GORENSEK B; KAVANAUGH S; LAMBRECHT G H; MOORE R K

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060253121	A1	20061109	US 2004873074	A	20040621	200704	B
			US 2006479886	A	20060630		

Priority Applications (no., kind, date): US 2004873074 A 20040621; US 2006479886 A 20060630

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060253121	A1	EN	32	7	Continuation of application	US 2004873074

Alerting Abstract US A1

NOVELTY - Delivering and positioning an **implant** (100) in an **intervertebral** disc, involves inserting into the disc, a **cannula** (120) slidably engaged with an advancer (130) that is coupled to an **implant**, which exhibits a compressed profile along at least one axis when constrained by the cannula; compressing the **implant** along the axis; constraining the **implant** with the cannula; positioning cannula to place the **implant** beyond an exterior aspect of the disc; releasing the **implant**; and expanding the **implant** along the axis, through relative motion of the cannula and the advancer, using an expander (175).

DESCRIPTION - Delivering and positioning an **implant** (100) in an **intervertebral** disc, involves inserting into the **intervertebral** disc, a **cannula** (120) slidably engaged with an advancer (130) that is coupled to the **implant**, which exhibits a compressed profile along at least one axis when constrained by the cannula; compressing the **implant** along the axis; constraining the **implant** with the cannula; positioning the **cannula** to place the **implant** beyond an exterior aspect of the **intervertebral** disc; releasing the **implant**; expanding the **implant** along the axis, through relative motion of the cannula and the advancer, using an expander (175); uncoupling the **implant** from the advancer; removing the cannula from the disc; and removing the advancer from the disc.

USE - To deliver and position an **implant** in an intervertebral disc having a defect or iatrogenic hole; useful for intervertebral disc repair.

ADVANTAGE - The method delivers and positions the **implant** in the intervertebral disc in a **minimally invasive** manner, as the **implant** is delivered, **positioned** and **expanded** in the intervertebral disc, after initial orientation and compression of the **implant**. Hence, the method can prevent/reduce exacerbation of the existing defect or iatrogenic

hole, in the intervertebral disc. The method provides precise access to desired site in the intervertebral disc, enabling effective **implantation**.
DESCRIPTION OF DRAWINGS - The figure shows a step of expanding the **implant** along an axis using an expander, for delivering and positioning the **implant** in an intervertebral disc.
100 **implant**
120 cannula
130 advancer
175 expander
310 defective anulus.

Title Terms /Index Terms/Additional Words: METHOD; DELIVER; POSITION; **IMPLANT**; INTERVERTEBRAL; DISC; COMPRESS; CONSTRAIN; CANNULA; PLACE; EXPAND; AFTER; RELEASE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/88	A	I	F	B	20060101
A61F-0002/44	A	N	L	B	20060101

US Classification, Issued: 606101000, 623017160

File Segment: EngPI; ;
DWPI Class: P31; P32

19/5/2 (Item 2 from file: 350) **Links**
Derwent WPIX

0016185213 *Drawing available*
WPI Acc no: 2006-716853/200674
XRAM Acc no: C2006-218474
XRPX Acc No: N2006-563572
Expandable cannula system, useful for diagnostic and therapeutic applications, has expandable elements located along and between free edges of leaflets, for controlling expansion of cannula at leading end of leaflets

Patent Assignee: BOEHM F H (BOEH-I); MELNICK B D (MELN-I)
Inventor: BOEHM F H; MELNICK B D

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060217754	A1	20060928	US 200586300	A	20050323	200674	B

Priority Applications (no., kind, date): US 200586300 A 20050323

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20060217754	A1	EN	21	15	

Alerting Abstract US A1

NOVELTY - An expandable cannula system (A) has leaflets (3,7) each of which has a leading end (4) and trailing end (5), with expandable elements arranged between each of the leaflets. A cannula of collapsed and **expanded configurations**, is composed of the leaflets. A series of expandable elements is located along and between the free edges of the leaflets.

DESCRIPTION - An expandable cannula system (A) has leaflets (3,7) each of which has a leading end (4) and trailing end (5), with expandable elements arranged between each of the leaflets. A cannula of collapsed and **expanded configurations**, is composed of the leaflets. A series of expandable elements is located along and between the free edges of the leaflets. The expandable elements control the expansion of the cannula at the leading end, for distracting the craniocaudal direction and mediolateral direction.

USE - (A) Is useful for performing diagnostic and therapeutic treatment on spine.

ADVANTAGE - (A) Can be utilized for both diagnostic and therapeutic intervention using simple structure.

DESCRIPTION OF DRAWINGS - The figure shows an elevational view of the expandable cannula system.

3,7 leaflets

4 leading end

5 trailing end

10 lateral aspect

11 connector

Title Terms /Index Terms/Additional Words: EXPAND; CANNULA; SYSTEM; USEFUL; DIAGNOSE; THERAPEUTIC; APPLY; ELEMENT; LOCATE; FREE; EDGE; LEAFLET; CONTROL; LEADING; END

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-0029/00	A	I	F	B	20060101

US Classification, Issued: 606191000

File Segment: CPI; EngPI

DWPI Class: A96; B07; D22; P34

Manual Codes (CPI/A-N): A12-V03D; B11-C04B; D09-C; D09-D

19/5/3 (Item 3 from file: 350) **Links**

Derwent WPIX

0015698959 *Drawing available*
WPI Acc no: 2006-262946/200627
XRPX Acc No: N2006-225178

Spinal fixation device implanting system, has cannulas with proximal and distal end, passageway extending from proximal end to distal end, and slot intersecting passageway of cannulas

Patent Assignee: GERBER D (GERB-I); HANSON S (HANS-I); HFSC CO (HFSC-N) ; HU X (HUXX-I); KEPHART D S (KEPH-I); KUNTZ K (KUNT-I); LEE A M (LEEA-I)
Inventor: GERBER D; HANSON S; HU X; KEPHART D S; KUNTZ K; LEE A M

Patent Family (2 patents, 110 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060074445	A1	20060406	US 2004957888	A	20040929	200627	B
WO 2006039279	A2	20060413	WO 2005US34609	A	20050928	200627	E

Priority Applications (no., kind, date): US 2004957888 A 20040929

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060074445	A1	EN	66	22		
WO 2006039279	A2	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

Alerting Abstract US A1
NOVELTY - The system has cannulas with proximal (658) and distal ends. A passageway extends from the proximal to the distal end, and a slot intersects the passageway. A flexible portion engages a spinal fixation device, and the slot is sized for receiving an elongated fixation device. A dilation mechanism **increases size** of an incision for forming an opening. The mechanism has a retractor with blades for inserting via the incision.
USE - Used for **implanting** a spinal fixation device in a vertebrae.
ADVANTAGE - The insertion cannulas allow visulization of an orientation of a head portion through the proximal ends of each cannula, thus enabling a surgeon to verify a location of a fixation rod in a channel, and hence enhancing ability of the surgeon for seeing a surgical site.
DESCRIPTION OF DRAWINGS - The drawing shows a cross-sectional view of a spinal fixation device **implanting** system.
652 Head portion

658 Proximal end
663 Distal opening
666 Channel
668 Chamfered edges

Title Terms /Index Terms/Additional Words: SPINE; FIX; DEVICE; **IMPLANT**; SYSTEM; PROXIMITY; DISTAL; END; PASSAGE; EXTEND; SLOT; INTERSECT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/88	A	I	F	B	20060101
A61M-0029/00	A	I	F	B	20060101

US Classification, Issued: 606191000

File Segment: EngPI; ;
DWPI Class: P34

19/5/4 (Item 4 from file: 350) **Links**
Derwent WPIX

0015471786
WPI Acc no: 2005-809571/200582
XRAM Acc no: C2005-248902
XRPX Acc No: N2005-671264
Providing an interspinous spacer between adjacent spinous processes by introducing a spacer assumed its collapsed configuration into patient and allowing the spacer to assume its expanded configuration while in the medical patient
Patent Assignee: SDGI HOLDINGS INC (SDGI-N); TRIEU H H (TRIE-I)
Inventor: TRIEU H H

Patent Family (2 patents, 108 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050261768	A1	20051124	US 2004851889	A	20040521	200582	B
WO 2005115261	A1	20051208	WO 2005US15582	A	20050504	200582	E

Priority Applications (no., kind, date): US 2004851889 A 20040521

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes

US 20050261768	A1	EN	17	10		
WO 2005115261	A1	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

Alerting Abstract US A1

NOVELTY - A method of providing an interspinous spacer between adjacent spinous processes involves providing a spacer that is configurable to a collapsed **configuration** and to an **expanded configuration**; causing the spacer to assume its collapsed configuration; introducing the spacer into a medical patient while the spacer is in its collapsed configuration; and allowing the spacer to assume its **expanded configuration** while in the medical patient.

DESCRIPTION - A method of providing an interspinous spacer between adjacent spinous processes involves

A. providing a spacer that is configurable to a collapsed configuration and to an **expanded** configuration; where the **collapsed configuration** presents an implantation **profile** that is **at** least 10 (preferably 25, especially 50)% smaller than the corresponding profile when the spacer is in its expanded configuration;
B. causing the **spacer to** assume its collapsed configuration;
C. introducing the spacer into a medical patient while the spacer is in its collapsed configuration;and
D. allowing the spacer to assume its expanded configuration while in the medical patient; where the expanded-**configuration spacer** is positioned between adjacent spinous processes.

INDEPENDENT CLAIMS are included for the following:

1. a method of providing an interspinous spacer between adjacent spinous processes involving providing a spacer comprising a blocking member with extending arms, being configurable in a collapsed configuration and in a relaxed configuration; where the collapsed configuration presents an implantation profile that is at least 10 (preferably 25, especially 50)% smaller than the **corresponding** profile when the spacer is in its relaxed configuration to facilitate minimally invasive implantation of the spacer; collapsing the spacer to its collapsed configuration, the **collapsed configuration having** a reduced profile when compared to the relaxed configuration; introducing the spacer into a medical patient while the spacer is in its collapsed configuration; and allowing the spacer to assume its relaxed configuration while in the patient; where the spacer is implanted such that the blocking member is positioned between the spinous processes and each **arm** is positioned longitudinally on one side of a spinous process;
2. a method of implanting an interspinous spacer involving providing a spacer comprising a blocking member and four extending arms, **the** spacer having an "H"-shaped configuration when in a relaxed configuration, and an "I"-shaped configuration when in a collapsed configuration; collapsing the spacer to its "I"-shaped configuration; providing the collapsed spacer in a device for holding the spacer in its collapsed configuration to

facilitate implantation in a medical patient, the cannula having a proximal end and a distal end; positioning **the** distal end of the cannula in a medical patient so that the end of the cannula clears each of a pair of adjacent spinal processes; pushing the collapsed spacer through the **cannula** until two of the arms exit the **cannula** and position themselves longitudinally beside the adjacent **spinal** processes; withdrawing the cannula while allowing or **causing** the spacer to continue through the cannula **such** that the spacer **exits** the cannula and the remaining two arms are positioned longitudinally on the other side of the adjacent spinal processes;and

3. a spacer (S1) for maintaining separation between adjacent spinous processes; the spacer comprising a blocking member with extending arms where the spacer is configurable into a collapsed configuration and an expanded configuration; and further where the collapsed configuration presents a smaller profile than the expanded **configuration** to facilitate **minimally invasive** implantation of the spacer.

ACTIVITY - Neuroprotective.
MECHANISM OF ACTION - Mechanical expansion.
USE - The device is used for providing an interspinous spacer between adjacent spinous processes (claimed) useful for treating spinal stenosis.
ADVANTAGE - The spacers can be implanted in a minimally invasive surgical techniques due to reduced profile of the collapsed configuration of the spacer.

Title Terms /Index Terms/Additional Words: SPACE; ADJACENT; SPINE; PROCESS; INTRODUCING; ASSUME; COLLAPSE; CONFIGURATION; PATIENT; ALLOW; EXPAND; MEDICAL

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61B-017/70			Main		"Version 7"

US Classification, Issued: 623017110

File Segment: CPI; EngPI
DWPI Class: A96; B04; D22; P31
Manual Codes (CPI/A-N): A12-V02; B04-C03; B11-C04A; B14-J01; B14-N01; B14-N16; D09-C01D

19/5/5 (Item 5 from file: 350) **Links**
Derwent WPIX

0015307478 *Drawing available*
WPI Acc no: 2005-657660/200567
Related WPI Acc No: 2003-440593; 2003-556815; 2005-065269; 2005-272782
XRPX Acc No: N2005-538872
Working channel creation method for performing minimal invasive surgery, involves passing implant through lateral passage formed in distal end of cannula after removing dilator

Patent Assignee: DEPUY SPINE INC (DEPU-N)
Inventor: SIMONSON R E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050216002	A1	20050929	US 200121809	A	20011030	200567	B
			US 200530218	A	20050106		

Priority Applications (no., kind, date): US 200121809 A 20011030; US 200530218 A 20050106

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050216002	A1	EN	11	9	Division of application	US 200121809

Alerting Abstract US A1

NOVELTY - A dilator (12) is extended from proximate a vertebra to external to the skin incision. A dilator retractor (30) or a cannula is inserted over the dilator. The dilator is removed so that the bore of **cannula** defines a working channel from skin incision to proximate the **vertebra**. An **implant** is passed through a lateral passage formed in the distal end of cannula.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of positioning an **implant** relative to a bone anchor.

USE - For creating working channel from skin incision to proximate vertebra when performing **minimal invasive surgery**

ADVANTAGE - Enables surgeon to perform surgical procedure while providing sufficient opening to permit the use of microscope and lighting to view the area of target. Provides opportunities to surgeon to operate in areas of spine that are **not** operable with **minimal invasive surgery**.

DESCRIPTION OF DRAWINGS - The figure shows the exploded perspective view of a non-cannulated dilator, a series of graduated **increased diameter** dilators and the cannula or dilator retractor.

12 Dilator
14 Non-cannula dilator
16 Solid body
24 Tool engaging end portion
30 Dilator retractor

Title Terms /Index Terms/Additional Words: WORK; CHANNEL; CREATION; METHOD; PERFORMANCE; MINIMUM; INVADE; SURGICAL; PASS; **IMPLANT**; THROUGH; LATERAL; PASSAGE; FORMING; DISTAL; END; CANNULA; AFTER; REMOVE; DILATED

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-029/00			Main		"Version 7"
A61B-017/58			Secondary		"Version 7"

A61B-0017/88	C	I		R	20060101
A61F-0002/44	C	N		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606086000

File Segment: EngPI; ;
DWPI Class: P31; P32

19/5/11 (Item 11 from file: 350) **Links**
Derwent WPIX

0014312308 *Drawing available*
WPI Acc no: 2004-499535/200447
Related WPI Acc No: 2002-113413; 2003-402774; 2004-248340; 2004-449477; 2005-111972
XRPX Acc No: N2004-394620
Treating method for spine of patient, involves performing multilevel procedure across three adjacent vertebrae through access device after actuating access device to have enlarged cross-sectional area at distal portion
Patent Assignee: ENDIUS INC (ENDI-N); PAGLIUCA J (PAGL-I); SHLUZAS A (SHLU-I); UNGER J D (UNGE-I)
Inventor: PAGLIUCA J; SHLUZAS A; UNGER J D

Patent Family (2 patents, 106 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040133201	A1	20040708	US 2000630077	A	20000801	200447	B
			WO 2002US28106	A	20020905		
			US 2002280489	A	20021025		
			US 2003658736	A	20030909		
WO 2005023123	A1	20050317	WO 2004US29567	A	20040909	200521	E

Priority Applications (no., kind, date): US 2002280489 A 20021025; WO 2002US28106 A 20020905; US 2000630077 A 20000801; US 2003658736 A 20030909

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20040133201	A1	EN	37	37	C-I-P of application	US 2000630077
					C-I-P of application	WO 2002US28106
					C-I-P of application	US 2002280489

					C-I-P of patent	US 6530926
WO 2005023123	A1	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

Alerting Abstract US A1
NOVELTY - A fusion device is **implanted** to an interbody space between two of three adjacent **vertebrae** via an anterior approach. An **access device** in first configuration having a first cross-sectional area at distal portion is inserted into a patient. The access device is actuated to a second **configuration** having an **enlarged cross-sectional** area at distal portion which extends across portions of vertebrae.
DESCRIPTION - Multilevel procedure is then performed across the three adjacent **vertebrae** through the **access device**.
USE - For treating spine of patient.
ADVANTAGE - Provides **minimally invasive access** to the spine, such that a variety of procedures, and preferably the entire procedure, can be performed via a single access device.
DESCRIPTION OF DRAWINGS - The figure is a partial cross-sectional view showing one stage of the method for treating spine of patient.
24 Skirt portion
56,58 Cut-out portions
604 Housings
650 Elongated member

Title Terms /Index Terms/Additional Words: TREAT; METHOD; SPINE; PATIENT; PERFORMANCE; MULTILEVEL; PROCEDURE; THREE; ADJACENT; VERTEBRA; THROUGH; ACCESS; DEVICE; AFTER; ACTUATE; ENLARGE; CROSS; SECTION; AREA; DISTAL; PORTION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/34; A61B-017/56			Main		"Version 7"
A61B-017/70			Secondary		"Version 7"

US Classification, Issued: 606061000, 606198000

File Segment: EngPI; ;
DWPI Class: P31

19/5/12 (Item 12 from file: 350) **Links**
Derwent WPIX

0010869719 *Drawing available*
WPI Acc no: 2001-489069/200153
Related WPI Acc No: 2001-489066; 2001-489070; 2001-489073; 2001-557624; 2002-066229; 2002-225948; 2003-111562; 2004-096709; 2005-241601; 2006-165100; 2006-421734
XRPX Acc No: N2001-361837
Device for forming shaped axial bores through spinal vertebrae has boring portion for boring trans-sacral axial bore from accessed sacral target point in alignment with axial instrumentation
Patent Assignee: AXIAMED INC (AXIA-N); CRAGG A H (CRAG-I); KAGAN J (KAGA-I); TRANS1 INC (TRAN-N)
Inventor: CRAGG A H; KAGAN J

Patent Family (7 patents, 93 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001060262	A1	20010823	WO 2001US4744	A	20010214	200153	B
AU 200138260	A	20010827	AU 200138260	A	20010214	200176	E
EP 1257210	A1	20021120	EP 2001910676	A	20010214	200301	E
			WO 2001US4744	A	20010214		
JP 2003522585	W	20030729	JP 2001559362	A	20010214	200358	E
			WO 2001US4744	A	20010214		
US 6740090	B1	20040525	US 2000182748	P	20000216	200435	E
			US 2000710369	A	20001110		
US 20040220577	A1	20041104	US 2000182748	P	20000216	200473	E
			US 2000710369	A	20001110		
			US 2004853476	A	20040525		
AU 2001238260	A8	20050915	AU 2001238260	A	20010214	200569	E

Priority Applications (no., kind, date): US 2004853476 A 20040525; US 2000182748 P 20000216; US 2000710369 A 20001110

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2001060262	A1	EN	69	42	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN				

	YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200138260	A	EN			Based on OPI patent	WO 2001060262
EP 1257210	A1	EN			PCT Application	WO 2001US4744
					Based on OPI patent	WO 2001060262
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
JP 2003522585	W	JA	89		PCT Application	WO 2001US4744
					Based on OPI patent	WO 2001060262
US 6740090	B1	EN			Related to Provisional	US 2000182748
US 20040220577	A1	EN			Related to Provisional	US 2000182748
					Continuation of application	US 2000710369
					Continuation of patent	US 6740090
AU 2001238260	A8	EN			Based on OPI patent	WO 2001060262

Alerting Abstract WO A1

NOVELTY - The device has a boring portion for boring a trans-sacral axial bore (152) from the accessed sacral target point in alignment with the axial instrumentation and axially through the vertebral bodies of the series of adjacent vertebrae and any intervertebral spinal discs. A bore enlarging tool fits within the trans-sacral axial bore to be inserted from the accessed sacral target point to a selected location along the trans-sacral axial bore and operable to enlarge a section of the bore within a vertebral body to form at least one recess.

USE - For performing spinal surgery.

ADVANTAGE - **Minimal invasive surgery** with low trauma.

DESCRIPTION OF DRAWINGS - The drawing shows a partial cross section side view of the axial bore.

152 Trans-sacral axial bore

Title Terms /Index Terms/Additional Words: DEVICE; FORMING; SHAPE; AXIS; BORE; THROUGH; SPINE; VERTEBRA; PORTION; TRANS; SACRAL; ACCESS ; TARGET; POINT; ALIGN; INSTRUMENT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/16; A61B-017/32; A61B-017/56			Main		"Version 7"
A61B-0017/00	A	N		R	20060101
A61B-0017/16	A	I		R	20060101
A61B-0017/17	A	I		R	20060101
A61B-0017/22	A	N		R	20060101
A61B-0017/28	A	N		R	20060101
A61B-0017/32	A	I		R	20060101
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101

A61B-0017/88	A	I		R	20060101
A61F-0002/00	A	N		R	20060101
A61F-0002/28	A	N		R	20060101
A61F-0002/30	A	N		R	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I		R	20060101
A61N-0005/10	A	N		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/16	C	I		R	20060101
A61B-0017/22	C	N		R	20060101
A61B-0017/28	C	N		R	20060101
A61B-0017/32	C	I		R	20060101
A61B-0017/60	C	N		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/28	C	N		R	20060101
A61F-0002/30	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101
A61N-0005/10	C	N		R	20060101

US Classification, Issued: 606080000, 606079000, 606080000, 606180000, 606061000, 128898000

File Segment: EngPI; ;
DWPI Class: P31

19/5/13 (Item 13 from file: 350) **Links**
Derwent WPIX

0010597028 *Drawing available*
WPI Acc no: 2001-202328/200120
XRPX Acc No: N2001-144349
Prosthetic implant apparatus for facilitating fusion of adjacent vertebrae, has component moved in transverse direction to laterally displace engaging plates to engage adjacent vertebrae
Patent Assignee: SURGICAL DYNAMICS INC (SURG-N)
Inventor: HINCHLIFFE P W J; YOUNG W P

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6190414	B1	20010220	US 1996741796	A	19961031	200120	B

Priority Applications (no., kind, date): US 1996741796 A 19961031

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 6190414	B1	EN	38	19	

Alerting Abstract US B1

NOVELTY - A rotatable component (142) is movable in a transverse direction relative to a longitudinal median plane to laterally displace the engaging plates (158,160) in order to support and engage the adjacent vertebrae. The engaging plates have discontinuous surfaces that engage the vertebral surfaces and promote bone ingrowth.

DESCRIPTION - An **implant** (104) is partially positioned within an intervertebral space defined between adjacent vertebrae. The engaging plates are pivotally connected to each other about a pivot pin (162).

USE - Used for facilitating fusion of adjacent **vertebrae**. Used in conjunction with **laparoscopic** or **minimally invasive surgical procedures**.

ADVANTAGE - Enables effectively positioning the **implant** within the remotely located and relatively inaccessible intervertebral space.

DESCRIPTION OF DRAWINGS - The figure shows the **enlarged cross sectional** view of the prosthetic **implant** apparatus disposed within the adjacent vertebrae with the displacement mechanism actuated to displace the vertebral engaging plates of the **implant**.

104 **Implant**

142 Rotatable component

158,160 Engaging plates

162 Pivot pin

Title Terms /Index Terms/Additional Words: **PROSTHESIS**; **IMPLANT**; APPARATUS; FACILITATE; FUSE; ADJACENT; VERTEBRA; COMPONENT; MOVE; TRANSVERSE; DIRECTION; LATERAL; DISPLACE; ENGAGE; PLATE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/44			Main		"Version 7"

US Classification, Issued: 623017150, 623017130, 623017160, 606061000

File Segment: EngPI; ;
DWPI Class: P32

19/5/14 (Item 14 from file: 350) **Links**
Derwent WPIX

0010409233 *Drawing available*
WPI Acc no: 2001-007047/200101
Related WPI Acc No: 2003-090277; 2003-493924; 2003-558792; 2004-080131; 2005-343928; 2006-755749
XRPX Acc No: N2001-005068

Prosthetic apparatus and method for replacing tissue, using expandable material

Patent Assignee: LI L K (LILK-I); LI MEDICAL TECHNOLOGIES INC (LIME-N); LI R (LIRR-I); SDGI HOLDINGS INC (SDGI-N)
Inventor: LI L K; LI R

Patent Family (4 patents, 30 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2000064385	A1	20001102	WO 2000US11690	A	20000426	200101	B
AU 200048108	A	20001110	AU 200048108	A	20000426	200109	E
US 6764514	B1	20040720	US 1999131053	P	19990426	200448	E
			US 2000559899	A	20000426		
US 20040210315	A1	20041021	US 1999131053	P	19990426	200470	E
			US 2000559899	A	20000426		
			US 2004842124	A	20040510		

Priority Applications (no., kind, date): US 1999131053 P 19990426; US 2000559899 A 20000426; US 2004842124 A 20040510

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2000064385	A1	EN	42	22		
National Designated States,Original	AU BR CA CN IL IN JP KR MX RU ZA					
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
AU 200048108	A	EN			Based on OPI patent	WO 2000064385
US 6764514	B1	EN			Related to Provisional	US 1999131053
US 20040210315	A1	EN			Related to Provisional	US 1999131053
					Division of application	US 2000559899
					Division of patent	US 6764514

Alerting Abstract WO A1
NOVELTY - The **implant** is thin, flexible and expands in biological tissue.
DESCRIPTION - The disk is delivered by preparing the intended insertion space, inserting the **implant** through a **cannula** and then allowing the **implant** to the **spine**.
USE - For the repair or **replacement** of human tissue inc. the nucleus pulposus of the spine.

ADVANTAGE - The method of material delivery is **minimally invasive** and may be stacked to produce differing dimensions, customizable by trimming.
DESCRIPTION OF DRAWINGS - The drawing shows a side view of the prosthetic nucleus.
5 wafer

Title Terms /Index Terms/Additional Words: **PROSTHESIS**; APPARATUS; METHOD; REPLACE; TISSUE; EXPAND; MATERIAL

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-0002/00	A	N		R	20060101
A61F-0002/28	A	N		R	20060101
A61F-0002/30	A	N		R	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/28	C	N		R	20060101
A61F-0002/30	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 623017160, 623017120, 623017160

File Segment: EngPI; ;
DWPI Class: P32

19/5/15 (Item 15 from file: 350) **Links**
Derwent WPIX

0007908337
WPI Acc no: 1996-433395/199643
Related WPI Acc No: 1990-022365; 1990-037021; 1995-036040; 1995-351181; 1996-039866; 1996-086965; 1996-414238; 1996-425184; 1997-051767; 1997-051788; 1997-051791; 1997-051792; 1999-456235; 2001-272953; 2006-229888
XRAM Acc no: C1996-135944
XRPX Acc No: N1996-365239
Insertion of an implant in a human spine - by penetration of a disc from the side between two vertebra, removing a part of the disc, and inserting the implant
Patent Assignee: MICHELSON G K (MICH-I); SDGI HOLDINGS INC (SDGI-N)

Inventor: MICHELSON G K

Patent Family (16 patents, 69 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1996027321	A2	19960912	WO 1996US2378	A	19960226	199643	B
AU 199650259	A	19960923	AU 199650259	A	19960226	199702	E
WO 1996027321	A3	19961227	WO 1996US2378	A	19960226	199713	E
EP 814718	A1	19980107	EP 1996907089	A	19960226	199806	E
			WO 1996US2378	A	19960226		
DE 29623247	U1	19980219	DE 29623247	U	19960226	199813	E
			WO 1996US2378	A	19960226		
US 5772661	A	19980630	US 1988205935	A	19880613	199833	E
			US 1991698674	A	19910510		
			US 199374781	A	19930610		
			US 1994219626	A	19940328		
			US 1995394836	A	19950227		
JP 11503339	W	19990326	JP 1996526885	A	19960226	199923	E
			WO 1996US2378	A	19960226		
KR 1998702563	A	19980715	WO 1996US2378	A	19960226	199927	E
			KR 1997705969	A	19970827		
AU 707418	B	19990708	AU 199650259	A	19960226	199938	E
US 20020091390	A1	20020711	US 1988205935	A	19880613	200248	E
			US 1991698674	A	19910510		
			US 199374781	A	19930610		
			US 1995394836	A	19950227		
			US 1995480461	A	19950607		
			US 2002100701	A	20020318		
US 20030158553	A1	20030821	US 1988205935	A	19880613	200356	NCE
			US 1991698674	A	19910510		
			US 199374781	A	19930610		
			US 1994219626	A	19940328		
			US 1995480461	A	19950607		
			US 2003371757	A	20030221		
EP 814718	B1	20041103	EP 1996907089	A	19960226	200475	E
			WO 1996US2378	A	19960226		
DE 69633778	E	20041209	DE 69633778	A	19960226	200481	E
			EP 1996907089	A	19960226		
			WO 1996US2378	A	19960226		
EP 1488755	A1	20041222	EP 1996907089	A	19960226	200501	E
			EP 200422577	A	19960226		
ES 2232836	T3	20050601	EP 1996907089	A	19960226	200538	E
JP 2006095326	A	20060413	JP 1996526885	A	19960226	200626	E

			JP 2005334330	A	20051118		

Priority Applications (no., kind, date): US 2003371757 A 20030221; US 2002100701 A 20020318; US 1995480461 A 19950607; US 1994219626 A 19940328; US 199374781 A 19930610; US 1991698674 A 19910510; US 1988205935 A 19880613; US 1995394836 A 19950227

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1996027321	A2	EN	111	35		
National Designated States,Original	AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN					
Regional Designated States,Original	AT BE CH DE DK EA ES FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG					
AU 199650259	A	EN			Based on OPI patent	WO 1996027321
WO 1996027321	A3	EN				
EP 814718	A1	EN			PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
DE 29623247	U1	DE	72	34	PCT Application	WO 1996US2378
US 5772661	A	EN			Division of application	US 1988205935
					C-I-P of application	US 1991698674
					C-I-P of application	US 199374781
					C-I-P of application	US 1994219626
					Division of patent	US 5015247
JP 11503339	W	JA	65		PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
KR 1998702563	A	KO			PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
AU 707418	B	EN			Previously issued patent	AU 9650259
					Based on OPI patent	WO 1996027321
US 20020091390	A1	EN			Division of application	US 1988205935
					C-I-P of application	US 1991698674
					C-I-P of application	US 199374781
					Division of application	US 1995394836
					Continuation of application	US 1995480461
					Division of patent	US 5015247
					C-I-P of patent	US 5484437
					Division of patent	US 5772661

US 20030158553	A1	EN			Division of application	US 1988205935
					Continuation of application	US 1991698674
					C-I-P of application	US 199374781
					C-I-P of application	US 1994219626
					Continuation of application	US 1995480461
					Division of patent	US 5015247
					C-I-P of patent	US 5484437
EP 814718	B1	EN			PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
DE 69633778	E	DE			Application	EP 1996907089
					PCT Application	WO 1996US2378
					Based on OPI patent	EP 814718
					Based on OPI patent	WO 1996027321
EP 1488755	A1	EN			Division of application	EP 1996907089
					Division of patent	EP 814718
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
ES 2232836	T3	ES			Application	EP 1996907089
					Based on OPI patent	EP 814718
JP 2006095326	A	JA	28		Division of application	JP 1996526885

Alerting Abstract WO A2
Intraspinal **implant** is inserted in a human spine by making a penetration from the side of the disc intermediate two adjacent vertebrae, removing a portion of the spinal disc and inserting, through the penetration, at least one **implant** between the vertebrae.
USE - In the surgical correction of thoracic and lumber disc disease and spinal deformities, particularly where fusion of adjacent vertebrae is required.
ADVANTAGE - Procedure allows approach to the spine from the side rather than from back or front, which are dangerous due to presence of the spinal cord or requires complex thoracic surgery. The procedure can be performed through a relatively **small incision**.

Title Terms /Index Terms/Additional Words: INSERT; **IMPLANT**; HUMAN; SPINE; PENETRATE; DISC; SIDE; TWO; VERTEBRA; REMOVE; PART

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/22; A61B-017/56; A61B-017/88; A61F-002/44			Main		"Version 7"

A61F-002/46			Secondary		"Version 7"
A61B-0017/00	A	N		R	20060101
A61B-0017/02	A	N		R	20060101
A61B-0017/02	A	I		R	20060101
A61B-0017/064	A	I		R	20060101
A61B-0017/16	A	I		R	20060101
A61B-0017/17	A	I		R	20060101
A61B-0017/32	A	I		R	20060101
A61B-0017/56	A	I	L	B	20060101
A61B-0017/58	A	I	F	B	20060101
A61B-0017/70	A	N		R	20060101
A61B-0017/80	A	N		R	20060101
A61B-0017/86	A	N		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0017/92	A	N		R	20060101
A61B-0019/00	A	N		R	20060101
A61F-0002/00	A	N		R	20060101
A61F-0002/02	A	N		R	20060101
A61F-0002/28	A	N		R	20060101
A61F-0002/30	A	N		R	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/02	C	N		R	20060101
A61B-0017/02	C	I		R	20060101
A61B-0017/064	C	I		R	20060101
A61B-0017/16	C	I		R	20060101
A61B-0017/32	C	I		R	20060101
A61B-0017/68	C	N		R	20060101
A61B-0017/70	C	N		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0019/00	C	N		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/02	C	N		R	20060101
A61F-0002/28	C	N		R	20060101
A61F-0002/30	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606061000, 606061000, 606061000, 623017000

File Segment: CPI; EngPI
DWPI Class: D22; P31; P32
Manual Codes (CPI/A-N): D09-C01D

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21/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0013874938 *Drawing available*
WPI Acc no: 2004-053697/200405
XRPX Acc No: N2004-043318
Spinal stabilization device, has cage with distal end for insertion into spinal disc passageway, and set of anchors on exterior part of cage for stabilizing cage in spinal disc passageway
Patent Assignee: LOEB M P (LOEB-I); RICHLEY R (RICH-I); TRIMEDYNE INC (TRIM-N)
Inventor: LOEB M P; RICHLEY R; RICHLEY R R

Patent Family (4 patents, 100 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003105673	A2	20031224	WO 2003US19150	A	20030617	200405	B
AU 2003248714	A1	20031231	AU 2003248714	A	20030617	200451	E
US 20050222681	A1	20051006	US 2002389365	P	20020617	200566	E
			WO 2003US19150	A	20030617		
			US 2004518423	A	20041217		
AU 2003248714	A8	20051027	AU 2003248714	A	20030617	200624	E

Priority Applications (no., kind, date): US 2004518423 A 20041217; US 2002389365 P 20020617

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003105673	A2	EN	60	28		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003248714	A1	EN			Based on OPI patent	WO 2003105673
US 20050222681	A1	EN			Related to Provisional	US 2002389365
					PCT Application	WO 2003US19150
AU 2003248714	A8	EN			Based on OPI patent	WO 2003105673

Alerting Abstract WO A2
NOVELTY - The device (100) has a cage with a distal end for insertion into a spinal disc (113) passageway formed in a spinal disc and an open proximal end to receive a shaft of an insertion device. A set of anchors on the exterior of

the cage stabilizes the cage in the spinal disc passageway. The cage is made of helical metal coil having exterior edges beveled into a sharp point.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of treating a degenerated disc.
USE - Used for treating degenerated spinal disc.
ADVANTAGE - The device treats a degenerated lumbar, thoracic or cervical disc in a minimally invasive, outpatient procedure, reducing the risks, mobility and cost of traditional surgical procedures and reducing the failure rate. The device provides more normal spinal movement for the patient without immobilizing the spine and reduces the need for subsequent surgeries.
DESCRIPTION OF DRAWINGS - The drawing shows a cross sectional, side view of a spinal stabilization device inserted into a spinal disc.
100 Spinal stabilization device
111 Delivery cannula
112 Tunnel
113 Spinal disc
114 Vertebra

Title Terms /Index Terms/Additional Words: SPINE; STABILISED; DEVICE; CAGE; DISTAL; END; INSERT; DISC; PASSAGE; SET; ANCHOR; EXTERIOR; PART

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B; A61F-002/44			Main		"Version 7"

US Classification, Issued: 623017110, 623908000

File Segment: EngPI; ;
DWPI Class: P31; P32

?

23/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0015932682 *Drawing available*
WPI Acc no: 2006-464347/200647
XRPX Acc No: N2006-379507
Spinal tissues separating method, involves positioning catheter between soft tissues near treatment site, expanding tissue distractor so as to separate soft tissues, and inflating balloon of tissue distractor
Patent Assignee: KYPHON INC (KYPH-N)
Inventor: ICO C; LAYNE R W; SALOM N; SETO C

Patent Family (2 patents, 111 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006068799	A1	20060629	WO 2005US43522	A	20051202	200647	B
US 20060149136	A1	20060706	US 200421786	A	20041222	200647	E

Priority Applications (no., kind, date): US 200421786 A 20041222

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2006068799	A1	EN	23	4	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				

Alerting Abstract WO A1
NOVELTY - The method involves providing a catheter with an expansible tissue distractor (18) on a distal end (16), and positioning the catheter between soft tissues near the treatment site. The tissue distractor is expanded so as to separate the soft tissues. The distractor is elongated by mechanical actuation, where the distractor comprises a balloon. The expansion of the tissue distractor comprises inflating the balloon.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a system for separating soft tissues.
USE - Used for separating **spinal** tissues for **cannula** access to a **spine** within a patient's body.
ADVANTAGE - The expansion of the tissue distractor comprises inflating the balloon, thus safely and easily creating an existing space between the tissues, and hence improving visualization and aiding in the proper positioning, expansion, and elongation of the tissue distractor, during open **surgery** and **minimally invasive surgery**.
DESCRIPTION OF DRAWINGS - The drawing shows a cross sectional view of an elongating tissue distractor

device.
12 Catheter body
14 Proximal end
16 Distal end
18 Expansible tissue distractor
22 Hub

Title Terms /Index Terms/Additional Words: SPINE; TISSUE; SEPARATE; METHOD; POSITION; CATHETER; SOFT; TREAT; SITE; EXPAND; DISTRACTION; SO; INFLATE; BALLOON

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0001/32	A	I	F	B	20060101
A61B-0017/32	A	I	F	B	20060101
A61M-0029/02	A	I	L	B	20060101

US Classification, Issued: 600204000

File Segment: EngPI; ;
DWPI Class: P31; P34

23/5/2 (Item 2 from file: 350) **Links**
Derwent WPIX

0015891990 *Drawing available*
WPI Acc no: 2006-423668/200643
XRPX Acc No: N2006-350016
Expandable dilator for spinal surgical system has distal portion and proximal portion, with proximal portion used to actuate expandable distal portion
Patent Assignee: ENDIUS INC (ENDI-N); ANDERSON S J (ANDE-I); DEGEORGE C P (DEGE-I); DIPOTO G P (DIPO-I); SHLUZAS A E (SHLU-I); WILLIAMS J (WILL-I)
Inventor: SHLUZAS A E; ANDERSON S J; DEGEORGE C P; DIPOTO G P; WILLIAMS J

Patent Family (2 patents, 111 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006058079	A2	20060601	WO 2005US42465	A	20051122	200643	B
US 20060195017	A1	20060831	US 2004630180	P	20041122	200657	E
			US 2005285226	A	20051122		

Priority Applications (no., kind, date): US 2005285226 A 20051122; US 2004630180 P 20041122

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2006058079	A2	EN	151	93		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20060195017	A1	EN			Related to Provisional	US 2004630180

Alerting Abstract WO A2

NOVELTY - The dilator (4500) includes an expandable distal portion (4512) and a proximal portion (4508) for actuating the distal portion. The distal portion is comprised of elongate members (4524A,4524B). Moving the proximal portion moves at least one of the elongate members to retract tissue.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a spine treatment method.

USE - For spinal surgical system.

ADVANTAGE - Provides **minimally invasive access** to **spine** such that varying procedures can be performed via **access device**.

DESCRIPTION OF DRAWINGS - The figure is a perspective view of the dilator.

4500 Dilator

4508 Proximal portion

4512 Distal portion

4524A,4524B Elongate members

4530 Outer surface

Title Terms /Index Terms/Additional Words: EXPAND; DILATED; SPINE; SURGICAL; SYSTEM; DISTAL; PORTION; PROXIMITY; ACTUATE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/02	A	I	F	B	20060101
A61B-0017/34	A	I	L	B	20060101
A61B-0017/70	A	I	L	B	20060101
A61B-0017/88	A	I	L	B	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/46	A	I	L	B	20060101

A61B-0001/32	A	I	F	B	20060101

US Classification, Issued: 600210000

File Segment: EngPI; ;
DWPI Class: P31; P32

23/5/4 (Item 4 from file: 350) **Links**
Derwent WPIX

0015340031 *Drawing available*
WPI Acc no: 2005-690288/200571
XRPX Acc No: N2005-566628
Access device for performing spinal surgical, has elongated body that defines passage for receiving surgical instrument accessing surgical location, and another passage that receives viewing tooling for visualizing surgical location
Patent Assignee: DIPOTO G P (DIPO-I); ENDIUS INC (ENDI-N); SHLUZAS A E (SHLU-I)
Inventor: DIPOTO G P; SHLUZAS A E

Patent Family (4 patents, 108 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005096968	A1	20051020	WO 2005US10609	A	20050331	200571	B
US 20050251192	A1	20051110	US 2004558296	P	20040331	200574	E
			US 200594822	A	20050330		
US 20060069404	A1	20060330	US 2004558296	P	20040331	200624	E
			US 200594822	A	20050330		
			US 2005241811	A	20050930		
EP 1742585	A1	20070117	EP 2005731598	A	20050331	200706	E
			WO 2005US10609	A	20050331		

Priority Applications (no., kind, date): US 2004558296 P 20040331; US 200594822 A 20050330; US 2005241811 A 20050930

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2005096968	A1	EN	147	91		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN					

	MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20050251192	A1	EN			Related to Provisional	US 2004558296
US 20060069404	A1	EN			Related to Provisional	US 2004558296
					C-I-P of application	US 200594822
EP 1742585	A1	EN			PCT Application	WO 2005US10609
					Based on OPI patent	WO 2005096968
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR					

Alerting Abstract WO A1

NOVELTY - An elongated body (4010) transforms between contracted state for insertion into a patient, and expanded state for providing access to a surgical location. The elongated body defines a passage (4066) for receiving a surgical instrument accessing the surgical location, and another passage (4012) that receives a viewing tooling for visualizing the surgical location.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

a. a surgical location accessing method; and
b. a surgical location accessing and visualizing system.

USE - For performing spinal surgical.

ADVANTAGE - **Reduces trauma** during surgical procedure. Offers discrete visualization of surgical location.

DESCRIPTION OF DRAWINGS - The figure shows the isometric view of the access device.

4010 Elongated body
4012 Another passage
4028 Distal portion
4032 Proximal portion
4066 Passage

Title Terms /Index Terms/Additional Words: ACCESS; DEVICE; PERFORMANCE; SPINE; SURGICAL; ELONGATE; BODY; DEFINE; PASSAGE; RECEIVE; INSTRUMENT; LOCATE; VIEW; TOOLING

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0001/313	A	N		R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/17	A	N		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/70	A	I		R	20060101

A61B-0017/88	A	I		R	20060101
A61B-0019/00	A	I		R	20060101
A61M-0029/00	A	I	F	B	20060101
A61B-0001/313	C	N		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/16	C	N		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0019/00	C	I		R	20060101
A61M-0029/00	C	I	L	B	20060101

US Classification, Issued: 606191000, 606198000

File Segment: EngPI; ;
DWPI Class: P31; P34

23/5/6 (Item 6 from file: 350) **Links**
Derwent WPIX

0014834781 *Drawing available*
WPI Acc no: 2005-182474/200519
Related WPI Acc No: 2005-356291
XRPX Acc No: N2005-152141
Access device for retracting tissue to provide access to spinal location within patient during spinal surgery, has main body which can be expanded between first configuration for insertion into patient, and second configuration
Patent Assignee: DIPOTO G P (DIPO-I); ENDIUS INC (ENDI-N); KIRK K D (KIRK-I); LOWERY G (LOWE-I); LOWERY G L (LOWE-I); ROYEN D V (ROYE-I); SHLUZAS A E (SHLU-I); STOECKMANN W (STOE-I)
Inventor: DIPOTO G; DIPOTO G P; KIRK K D; KIRKI K; KIRKI K D; LOWERY G; LOWERY G L; ROYEN D V; SHLUZAS A; SHLUZAS A E; STOECKMANN W; VAN ROYEN D

Patent Family (5 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005018466	A2	20050303	WO 2004US27761	A	20040826	200519	B
US 20050075540	A1	20050407	US 2003678744	A	20031002	200525	E
US 20050273132	A1	20051208	US 2003497763	P	20030826	200581	E
			US 2003497822	P	20030826		
			US 2003678744	A	20031002		
			US 2003514559	P	20031024		

			US 2004545587	P	20040218		
			US 2004579643	P	20040615		
			US 2004926840	A	20040826		
EP 1667584	A2	20060614	EP 2004782275	A	20040826	200641	E
			WO 2004US27761	A	20040826		
US 20060271057	A1	20061130	US 2003497763	P	20030826	200680	E
			US 2003497822	P	20030826		
			US 2003678744	A	20031002		
			US 2006489788	A	20060720		

Priority Applications (no., kind, date): US 2003497822 P 20030826; US 2003497763 P 20030826; US 2003678744 A 20031002; US 2003514559 P 20031024; US 2004545587 P 20040218; US 2004579643 P 20040615; US 2004926840 A 20040826; US 2006489788 A 20060720

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2005018466	A2	EN	270	284		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20050273132	A1	EN			Related to Provisional	US 2003497763
					Related to Provisional	US 2003497822
					C-I-P of application	US 2003678744
					Related to Provisional	US 2003514559
					Related to Provisional	US 2004545587
					Related to Provisional	US 2004579643
EP 1667584	A2	EN			PCT Application	WO 2004US27761
					Based on OPI patent	WO 2005018466
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR					
US 20060271057	A1	EN			Related to Provisional	US 2003497763
					Related to Provisional	US 2003497822
					Division of application	US 2003678744

Alerting Abstract WO A2

NOVELTY - A passage extends through an elongate main body between proximal and distal ends. The passage is

defined by a smooth metal inner surface which extends entirely around perimeter of passage. The main body can be **expanded** between first **configuration** for insertion into patient, and second configuration in which cross-sectional area of passage at distal end is greater than that at proximal end.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a retractor.
USE - For retracting tissue to provide access to a spinal location within a patient during a spinal surgery.
ADVANTAGE - Allows **minimally invasive access** to spine, and allows execution of one or more procedures using only one access device.
DESCRIPTION OF DRAWINGS - The figure shows the perspective view of access device.
20 Access device
22 Proximal wall portion
24 Skirt portion
26 Initial dimension
30 Rivet

Title Terms /Index Terms/Additional Words: ACCESS; DEVICE; RETRACT; TISSUE; SPINE; LOCATE; PATIENT; SURGICAL; MAIN; BODY; CAN; EXPAND; FIRST; CONFIGURATION; INSERT; SECOND

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-005/00			Main		"Version 7"
A61B-0001/31	A	N		R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/02	A	I		R	20060101
A61B-0017/17	A	N		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0019/00	A	I		R	20060101
A61M-0029/00	A	I		R	20060101
A61F-0005/00	A	I	F	B	20060101
A61B-0001/31	C	N		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/02	C	I		R	20060101
A61B-0017/16	C	N		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0019/00	C	I		R	20060101
A61M-0029/00	C	I		R	20060101

US Classification, Issued: 600203000, 600245000, 606198000, 606198000, 606086000

File Segment: EngPI; ;
DWPI Class: P31; P32; P34

23/5/7 (Item 7 from file: 350) **Links**
Derwent WPIX

0014631747 *Drawing available*
WPI Acc no: 2004-813746/200480
Related WPI Acc No: 2000-162980; 2002-113413; 2002-180004; 2003-402774; 2004-347769; 2004-449477; 2005-111972; 2005-141754; 2005-366041
XRPX Acc No: N2004-642196
Minimally invasive procedure enabling system for used during spine surgery, has support arm that supports elongated body outside body of patient
Patent Assignee: DAVISON T W (DAVI-I)
Inventor: DAVISON T W

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040236317	A1	20041125	US 2000630077	A	20000801	200480	B
			US 2002280489	A	20021025		
			US 2003686154	A	20031015		

Priority Applications (no., kind, date): US 2002280489 A 20021025; US 2000630077 A 20000801; US 2003686154 A 20031015

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20040236317	A1	EN	27	31	C-I-P of application	US 2000630077
					Continuation of application	US 2002280489
					C-I-P of patent	US 6530926

Alerting Abstract US A1
NOVELTY - A support arm supports an elongated body (130) outside the body of a patient. The elongated body, arrangeable between a first position and a second position, has an inner surface with a passage extending through the elongated body.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

c. an access device; and
d. an access providing method.

USE - Used during spine surgery.

ADVANTAGE - Enables viewing of surgical site through small video camera in endoscope connected to monitor. Ensures easy fixation of **vertebrae**.
DESCRIPTION OF DRAWINGS - The figure shows the isometric view of a support apparatus.
10 First cannula
120 First support
121 Perimeter
130 Elongated body
160 Adjustment mechanism

Title Terms /Index Terms/Additional Words: MINIMUM; INVADE; PROCEDURE; ENABLE; SYSTEM; SPINE; SURGICAL; SUPPORT; ARM; ELONGATE; BODY; PATIENT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/00			Main		"Version 7"

US Classification, Issued: 606001000, 606198000

File Segment: EngPI; ;
DWPI Class: P31

23/5/8 (Item 8 from file: 350) **Links**
Derwent WPIX

0014613178 *Drawing available*
WPI Acc no: 2004-795151/200478
XRPX Acc No: N2004-626716
Access device for minimally invasive surgery, has distal wall portion having spaced apart locations, with passage at one location having cross-sectional area that is larger than that of passage at other location
Patent Assignee: ENDIUS INC (ENDI-N); SHLUZAS A E (SHLU-I)
Inventor: SCHLUZAS A E; SHLUZAS A; SHLUZAS A E

Patent Family (3 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040230100	A1	20041118	US 2003471431	P	20030516	200478	B
			US 2003513796	P	20031022		
			US 2004845389	A	20040513		
WO 2004103188	A2	20041202	WO 2004US15325	A	20040514	200479	E
EP 1626662	A2	20060222	EP 2004752355	A	20040514	200615	E
			WO 2004US15325	A	20040514		

Priority Applications (no., kind, date): US 2003513796 P 20031022; US 2003471431 P 20030516; US 2004845389 A 20040513

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20040230100	A1	EN	107	95	Related to Provisional	US 2003471431
					Related to Provisional	US 2003513796
WO 2004103188	A2	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
EP 1626662	A2	EN			PCT Application	WO 2004US15325
					Based on OPI patent	WO 2004103188
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR					

Alerting Abstract US A1
NOVELTY - A proximal wall portion (22) has side portions that are movable relative to each other such that the longitudinal edges of the side portions can be positioned in close proximity to or spaced apart from each other. A distal wall portion has spaced apart locations, with the passage at one location having a larger cross-sectional area than the passage at the other location.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

e. a surgical assembly;
f. a system for providing access to a surgical location adjacent the spine; and
g. a method for accessing a surgical location within a patient.

USE - For minimally invasive surgery.
ADVANTAGE - Enables minimally invasive access to spine such that varying procedures can **be performed using** one **access** device.
DESCRIPTION OF DRAWINGS - The figure is a perspective view of the access device.
22 Proximal wall portion
24 Skirt portion
44 Rivet
46,48 Slots

Title Terms /Index Terms/Additional Words: ACCESS; DEVICE; MINIMUM; INVADE; SURGICAL; DISTAL;

WALL; PORTION; SPACE; APART; LOCATE; PASSAGE; ONE; CROSS; SECTION; AREA; LARGER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/02; A61B-017/16			Main		"Version 7"
A61B-017/34			Secondary		"Version 7"
A61B-0017/02	A	I	F	B	19680901
A61B-0017/34	A	I	L	B	19680901

US Classification, Issued: 600208000

File Segment: EngPI; ;
DWPI Class: P31

23/5/9 (Item 9 from file: 350) **Links**
Derwent WPIX

0012905042 *Drawing available*
WPI Acc no: 2002-180004/200223
Related WPI Acc No: 2000-162980; 2002-113413; 2003-402774; 2004-248340; 2004-347769; 2004-449477; 2004-813746; 2005-111972; 2005-141754; 2005-366041
XRPX Acc No: N2002-136819
Fixing of vertebrae through a cannula method uses a two-part cannula that may be expanded inside the body to give a conical open end to allow access for instruments and/or endoscope to fix a pair of vertebra
Patent Assignee: DAVISON T W (DAVI-I); ENDIUS INC (ENDI-N); SHER A (SHER-I); TAYLOR T E (TAYL-I)

Inventor: DAVISON T W; SHER A; TAYLOR T E

Patent Family (24 patents, 94 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2002009801	A1	20020207	WO 2001US23999	A	20010731	200223	B
US 20010011170	A1	20010802	US 1998137335	A	19980820	200223	E
			US 2001772605	A	20010130		
AU 200179112	A	20020213	AU 200179112	A	20010731	200238	E
US 6530926	B1	20030311	US 2000630077	A	20000801	200321	E
EP 1305077	A1	20030502	EP 2001957359	A	20010731	200331	E
			WO 2001US23999	A	20010731		
US 20030195493	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		

			US 2003439385	A	20030516		
US 20030195549	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		
			US 2003439979	A	20030516		
US 20030195550	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		
			US 2003440231	A	20030516		
US 20030195551	A1	20031016	US 1998137335	A	19980820	200369	E
			US 2001772605	A	20010130		
			US 2003441319	A	20030516		
US 20030199884	A1	20031023	US 1998137335	A	19980820	200370	E
			US 2001772605	A	20010130		
			US 2003435730	A	20030509		
US 20030199885	A1	20031023	US 1998137335	A	19980820	200370	E
			US 2001772605	A	20010130		
			US 2003440278	A	20030516		
JP 2004504893	W	20040219	WO 2001US23999	A	20010731	200414	E
			JP 2002515352	A	20010731		
US 20040078051	A1	20040422	US 1998137335	A	19980820	200428	E
			US 2001772605	A	20010205		
			US 2003685761	A	20031015		
US 20040093002	A1	20040513	US 1998137335	A	19980820	200432	E
			US 2001772605	A	20010130		
			US 2003440002	A	20030516		
US 20040098012	A1	20040520	US 1998137335	A	19980820	200434	E
			US 2001772605	A	20010130		
			US 2003713820	A	20031114		
US 6800084	B2	20041005	US 1998137335	A	19980820	200465	E
			US 2001772605	A	20010130		
US 6811558	B2	20041102	US 1998137335	A	19980820	200472	E
			US 2001772605	A	20010130		
			US 2003435730	A	20030509		
US 6837891	B2	20050104	US 1998137335	A	19980820	200503	E
			US 2001772605	A	20010130		
			US 2003439385	A	20030516		
US 20050043754	A1	20050224	US 1998137335	A	19980820	200515	E
			US 2001772605	A	20010130		
			US 2003435730	A	20030509		
			US 2004958505	A	20041005		
US 7001397	B2	20060221	US 1998137335	A	19980820	200615	E
			US 2001772605	A	20010130		
			US 2003440002	A	20030516		

US 7033369	B2	20060425	US 1998137335	A	19980820	200628	E
			US 2001772605	A	20010130		
			US 2003439979	A	20030516		
US 20060089662	A1	20060427	US 1998137335	A	19980820	200629	E
			US 2000630077	A	20000801		
			US 2001772605	A	20010130		
			WO 2001US23999	A	20010731		
			US 2004514797	A	20041118		
US 7108705	B2	20060919	US 1998137335	A	19980820	200662	E
			US 2001772605	A	20010130		
			US 2003440278	A	20030516		
US 20060264999	A1	20061123	US 1998137335	A	19980820	200678	E
			US 2001772605	A	20010130		
			US 2003440278	A	20030516		
			US 2006417616	A	20060503		

Priority Applications (no., kind, date): US 1998137335 A 19980820; US 2000630077 A 20000801; US 2001772605 A 20010130; US 2001772605 A 20010205; US 2003435730 A 20030509; US 2003439385 A 20030516; US 2003439979 A 20030516; US 2003440002 A 20030516; US 2003440231 A 20030516; US 2003440278 A 20030516; US 2003441319 A 20030516; US 2003685761 A 20031015; US 2003713820 A 20031114; US 2004958505 A 20041005; US 2004514797 A 20041118; US 2006417616 A 20060503

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2002009801	A1	EN	117	41		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
US 20010011170	A1	EN			C-I-P of application	US 1998137335
					C-I-P of patent	US 6187000
AU 200179112	A	EN			Based on OPI patent	WO 2002009801
EP 1305077	A1	EN			PCT Application	WO 2001US23999
					Based on OPI patent	WO 2002009801
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
US 20030195493	A1	EN			C-I-P of application	US 1998137335

					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20030195549	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20030195550	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20030195551	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20030199884	A1	EN			C-I-P of application	US 1998137335
					Division of application	US 2001772605
					C-I-P of patent	US 6187000
US 20030199885	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
JP 2004504893	W	JA	148		PCT Application	WO 2001US23999
					Based on OPI patent	WO 2002009801
US 20040078051	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20040093002	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20040098012	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 6800084	B2	EN			C-I-P of application	US 1998137335
					C-I-P of patent	US 6187000
US 6811558	B2	EN			C-I-P of application	US 1998137335
					Division of application	US 2001772605
					C-I-P of patent	US 6187000
US 6837891	B2	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
US 20050043754	A1	EN			C-I-P of application	US 1998137335
					Division of application	US 2001772605
					Division of application	US 2003435730
					C-I-P of patent	US 6187000
					Division of patent	US 6800084
					Division of patent	US 6811558

US 7001397	B2	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
					Continuation of patent	US 6800084
US 7033369	B2	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
					Continuation of patent	US 6800084
US 20060089662	A1	EN			C-I-P of application	US 1998137335
					C-I-P of application	US 2000630077
					C-I-P of application	US 2001772605
					PCT Application	WO 2001US23999
					C-I-P of patent	US 6187000
					C-I-P of patent	US 6530926
					C-I-P of patent	US 6800084
US 7108705	B2	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					C-I-P of patent	US 6187000
					Continuation of patent	US 6800084
US 20060264999	A1	EN			C-I-P of application	US 1998137335
					Continuation of application	US 2001772605
					Continuation of application	US 2003440278
					C-I-P of patent	US 6187000
					Continuation of patent	US 6800084
					Continuation of patent	US 7108705

Alerting Abstract WO A1

NOVELTY - The cannula has a thicker walled tubular part (20) that is attached by a single pivot (66) to a rolled sheet (12) that can be expanded to form an open-ended cone. The sheet has a guide pin (92) connected between the edge of the sheet and sliding in a curved guide slot (80) extending from the opposite edge. The cannula sections may be covered during insertion with a sheath (100) removed by a pull-string (104). The cone may be expanded by insertion of a tool (116)

DESCRIPTION - INDEPENDENT CLAIMS are also included for

A. The method of installing the cannula including overlap of the two cannula parts
B. The method using cannula that are radiolucent and have non-reflective inner coating
C. The method using a cannula the expands to form a cone
D. The method to make fixings to the **vertebrae** using a two part **cannula**

USE - To fix vertebrae together

ADVANTAGE - The operation can be carried out through the cannula thus avoiding more invasive open surgery

DESCRIPTION OF DRAWINGS - Exploded view of cannula and expansion tool

12 Expanding end of cannula

66 Pivot
80 Expansion guide slot
92 Expansion guide pin
100 Insertion sheath
104 Pull string
116 Expansion tool

Title Terms /Index Terms/Additional Words: FIX; VERTEBRA; THROUGH; CANNULA; METHOD; TWO; PART; EXPAND; BODY; CONICAL; OPEN; END; ALLOW; ACCESS; INSTRUMENT; ENDOSCOPE; PAIR

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61B-017/12; A61M-029/00			Main		"Version 7"
A61B-0017/00	A	I	F	B	20060101
A61B-0017/00	A	I	F	R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/02	A	I		R	20060101
A61B-0017/02	A	N		R	20060101
A61B-0017/17	A	I		R	20060101
A61B-0017/28	A	N		R	20060101
A61B-0017/32	A	N		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/56	A	I	F	R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0019/00	A	I	L	R	20060101
A61F-0011/00	A	I	F	B	20060101
A61M-0029/00	A	I	F	B	20060101
A61B-0017/00	C	I	L	B	20060101
A61B-0017/00	C	I	L	R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/02	C	I		R	20060101
A61B-0017/02	C	N		R	20060101
A61B-0017/16	C	I		R	20060101
A61B-0017/28	C	N		R	20060101
A61B-0017/32	C	N		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0019/00	C	I	F	R	20060101
A61F-0011/00	C	I	L	B	20060101

US Classification, Issued: 604500000, 604239000, 604158000, 606001000, 606198000, 606198000, 606198000, 606108000, 606108000, 606191000, 606190000 , 606190000, 606198000, 606198000, 606198000, 606198000, 606061000, 606073000, 604264000, 606198000, 604264000, 606190000, 604104000, 606108000 , 604164050, 606108000, 604264000, 606108000, 604104000, 606198000, 128898000

File Segment: EngPI; ;
DWPI Class: P31; P32; P34

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25/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0016224761 *Drawing available*
WPI Acc no: 2006-756404/200677
XRPX Acc No: N2006-587651
Interspinous process implant for treating spinal stenosis, has wing with height greater than thickness of spacer in deployed configuration
Patent Assignee: ST FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N)
Inventor: FLYNN J J; HSU K Y; KLYCE H A; MARKWART J A; MITCHELL S T; WINSLOW C J; YERBY S A; ZUCHERMAN J F

Patent Family (2 patents, 111 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006113080	A2	20061026	WO 2006US11623	A	20060330	200677	B
US 20060271049	A1	20061130	US 2005672402	P	20050418	200680	E
			US 2006389002	A	20060324		

Priority Applications (no., kind, date): US 2005672402 P 20050418; US 2006389002 A 20060324

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2006113080	A2	EN	58	26		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20060271049	A1	EN			Related to Provisional	US 2005672402

Alerting Abstract WO A2
NOVELTY - The **implant** (900) has a spacer (920) of specific thickness and a wing (960) extending from spacer. A rod extending through spacer is used to selectively arrange the wing in different configurations when moved relative to spacer. The height of wing is same as the thickness of spacer in normal **configuration** and **greater** than thickness of spacer in deployed configuration.
DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

1. adjacent **spinal** process support system; and
2. **implant** arrangement method.

USE - For treating **spinal** stenosis.
ADVANTAGE - **Reduces trauma** to the **spine** and promote early healing. Prevents destabilization of anatomy of neck.
DESCRIPTION OF DRAWINGS - The figure shows the perspective view of an interspinous process **implant**.
900 Interspinous process **implant**
920 spacer
960 wing
962 upper end of wing
995 **cannula**

Title Terms /Index Terms/Additional Words: PROCESS; **IMPLANT**; TREAT; **SPINE**; STENOSIS; WING; HEIGHT; GREATER; THICK ; SPACE; DEPLOY; CONFIGURATION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-0002/30	A	I	F	B	20060101

US Classification, Issued: 606061000

File Segment: EngPI; ;
DWPI Class: P32

25/5/3 (Item 3 from file: 350) **Links**
Derwent WPIX

0013352715 *Drawing available*
WPI Acc no: 2003-440593/200341
Related WPI Acc No: 2003-556815; 2005-065269; 2005-272782; 2005-657660
XRPX Acc No: N2003-351776
Non-cannulated dilator for use in minimal invasive surgery has solid body dimensioned such that tissue and muscle being penetrated by dilator will afford resistive force while being inserted towards target of patient
Patent Assignee: DEPUY SPINE INC (DEPU-N); SIMONSON R E (SIMO-I)
Inventor: SIMONSON R E

Patent Family (2 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20030083689	A1	20030501	US 200124221	A	20011030	200341	B
US 6916330	B2	20050712	US 200124221	A	20011030	200546	E

Priority Applications (no., kind, date): US 200124221 A 20011030

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20030083689	A1	EN	6	5	

Alerting Abstract US A1

NOVELTY - An elongated solid body (12) with a pointed end (16) has a diameter enough to make it rigid. The solid body is dimensioned such that the tissue and muscle being penetrated by the dilator (10) will afford a resistive force while being inserted towards the target of the patient.

USE - For use in **minimal invasive surgery** to enlarge the area where the surgery will be performed on a patient.

ADVANTAGE - Enables surgeon performing the procedure to have a feel of the instrument while instrument passes through the tissue and muscle of the patient so that surgeon will have a good sense of what portion of the anatomy is being penetrated and avoid the **spinal** canal.

DESCRIPTION OF DRAWINGS - The figure shows a cut view of the anatomy of the patient with the inserted dilator.

10 Dilator

12 Solid body

16 Pointed end

Title Terms /Index Terms/Additional Words: NON; **CANNULA**; DILATED; MINIMUM; INVADE; SURGICAL; SOLID; BODY; DIMENSION; TISSUE; MUSCLE; PENETRATE; AFFORD; RESISTOR; FORCE; INSERT; TARGET; PATIENT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-029/00			Main		"Version 7"

US Classification, Issued: 606191000, 606191000

File Segment: EngPI; ;
DWPI Class: P34

25/5/4 (Item 4 from file: 350) **Links**
Derwent WPIX

0013257322 *Drawing available*
WPI Acc no: 2003-342862/200332

XRPX Acc No: N2003-274248

Spinal disc implant that can be inserted minimally invasively has curved and expanded configurations assumed after insertion into disc space, and radially compressed and delivery configurations to enable implant insertion

Patent Assignee: REX MEDICAL (REXM-N); REX MEDICAL LP (REXM-N)

Inventor: MCGUCKIN J F

Patent Family (5 patents, 32 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003028587	A2	20030410	WO 2002US30263	A	20020924	200332	B
US 20030199979	A1	20031023	US 2001326438	P	20011002	200370	E
			US 2002253446	A	20020924		
EP 1432371	A2	20040630	EP 2002800351	A	20020924	200443	E
			WO 2002US30263	A	20020924		
AU 2002334655	A1	20030414	AU 2002334655	A	20020924	200461	E
JP 2005504584	W	20050217	WO 2002US30263	A	20020924	200513	E
			JP 2003531927	A	20020924		

Priority Applications (no., kind, date): US 2002253446 A 20020924; US 2001326438 P 20011002

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003028587	A2	EN	29	15		
National Designated States,Original	AU BR CA CN JP KR MX					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR					
US 20030199979	A1	EN			Related to Provisional	US 2001326438
EP 1432371	A2	EN			PCT Application	WO 2002US30263
					Based on OPI patent	WO 2003028587
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR					
AU 2002334655	A1	EN			Based on OPI patent	WO 2003028587
JP 2005504584	W	JA	51		PCT Application	WO 2002US30263
					Based on OPI patent	WO 2003028587

Alerting Abstract WO A2

NOVELTY - The **spinal implant** (30) has a smaller transverse cross-sectional dimension in a radially compressed **configuration** than in a first **expanded configuration** and has a more linear configuration in a second delivery configuration than in a first curved configuration. The **implant** assumes the second radially compressed configuration and second delivery configuration during delivery to the disc space and assumes the first curved **configuration** and first **expanded configuration** upon placement within the disc space.

DESCRIPTION - The **implant** further moves towards the radially compressed configuration once **implanted** in response to a load placed on the **implant** by the **vertebral** bodies. An INDEPENDENT CLAIM is included for a method of **minimally invasively** inserting a **spinal implant** in a disc space.
USE - **Spinal** disc **implant**.
ADVANTAGE - **Implant** can be inserted **minimally invasively** by **endoscopic procedure**.
DESCRIPTION OF DRAWINGS - The drawing shows a close up top view of the **implant**.
22 elongate tubular member
30 **implant**

Title Terms /Index Terms/Additional Words: **SPINE**; DISC; **IMPLANT**; CAN; INSERT; MINIMUM; INVASIVELY; CURVE; EXPAND; CONFIGURATION; ASSUME; AFTER; SPACE; RADIAL; COMPRESS; DELIVER; ENABLE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/00; A61F-002/44			Main		"Version 7"
A61F-002/46; A61F-002/48.			Secondary		"Version 7"

US Classification, Issued: 623017110

File Segment: EngPI; ;
DWPI Class: P32

25/5/8 (Item 8 from file: 350) **Links**
Derwent WPIX

0008943691
WPI Acc no: 1998-495467/199842
XRPX Acc No: N1998-387029
Bone and spinal stabilisation device - includes intramedullar nails and invertebral cages, and device being capable of increasing in size from reduced diameter to expanded diameter
Patent Assignee: BEYAR M (BEYA-I); DISCOTECH NV (DISC-N); GLOBERMAN O (GLOB-I); MAGAL E (MAGA-I)
Inventor: BEYAR M; GLOBERMAN O; MAGAL E

Patent Family (9 patents, 80 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1998038918	A1	19980911	WO 1998IB523	A	19980306	199842	B
AU 199865136	A	19980922	AU 199865136	A	19980306	199908	E
EP 1011464	A1	20000628	EP 1998910912	A	19980306	200035	E
			WO 1998IB523	A	19980306		

US 6127597	A	20001003	US 199738618	P	19970307	200050	E
			US 199738942	P	19970307		
			US 199871531	P	19980115		
			US 199836719	A	19980306		
JP 2001527437	W	20011225	JP 1998538320	A	19980306	200204	E
			WO 1998IB523	A	19980306		
AU 745916	B	20020411	AU 199865136	A	19980306	200237	E
AU 200229257	A	20020516	AU 199865136	A	19980306	200244	NCE
			AU 200229257	A	20020328		
AU 200229259	A	20020516	AU 199865136	A	19980306	200244	NCE
			AU 200229259	A	20020328		
AU 200229261	A	20020516	AU 199865136	A	19980306	200244	NCE
			AU 200229261	A	20020328		

Priority Applications (no., kind, date): AU 200229261 A 20020328; AU 200229259 A 20020328; AU 200229257 A 20020328; US 199836719 A 19980306; US 199738618 P 19970307; US 199738942 P 19970307; US 199871531 P 19980115

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1998038918	A1	EN	95	23		
National Designated States,Original	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
Regional Designated States,Original	AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 199865136	A	EN			Based on OPI patent	WO 1998038918
EP 1011464	A1	EN			PCT Application	WO 1998IB523
					Based on OPI patent	WO 1998038918
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6127597	A	EN			Related to Provisional	US 199738618
					Related to Provisional	US 199738942
					Related to Provisional	US 199871531
JP 2001527437	W	JA	81		PCT Application	WO 1998IB523
					Based on OPI patent	WO 1998038918
AU 745916	B	EN			Previously issued patent	AU 9865136
					Based on OPI patent	WO 1998038918
AU 200229257	A	EN			Division of application	AU 199865136
					Division of patent	AU 745916
AU 200229259	A	EN			Division of application	AU 199865136

					Division of patent	AU 745916
AU 200229261	A	EN			Division of application	AU 199865136
					Division of patent	AU 745916

Alerting Abstract WO A1

The device includes intramedullar nails (20), invertebral cages and **prostheses**. The intramedullar nails, **intervertebral** cages and **prostheses** are designed for **expansion** from a small **diameter** for insertion into place to a larger diameter which stabilises, fixates or repairs the bone, and further can be inserted percutaneously e.g. via a syringe.

The device has a reduced diameter sufficiently small that the device can be inserted into the bone through a hole which is smaller in diameter than the medulla of the bone.

USE - For fixation and repair of bones having intramedullary cavity. For connecting together and jointly bracing two or more sections of a severely fractured bone.

ADVANTAGE - Enables a percutaneous **non- laparoscopic** type **minimally invasive** technique to be utilised to facilitate and improve **spinal** fusion.

Title Terms /Index Terms/Additional Words: BONE; **SPINE**; STABILISED; DEVICE; NAIL; CAGE; CAPABLE; INCREASE; SIZE; REDUCE; DIAMETER; EXPAND

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/00; A61F-002/44; A61F-005/04			Main		"Version 7"
A61B-017/58			Secondary		"Version 7"

US Classification, Issued: 623016000, 623011000

File Segment: EngPI; ;
DWPI Class: P31; P32

?

Set Items Description
S1 13995140 S SPINE? ? OR SPINAL? OR VERTEBRA? OR INTERVERTEBRA?
S2 83752 S FACET?
S3 1617186 S PROSTHES? OR IMPLANT? OR ENDOPROSTHE? OR REPLACEMENT? OR ARTHROPLAST?
S4 1665064 S REPLACEMENT? OR ARTIFICIAL
S5 273743 S (MINIMAL? OR LESS OR REDUCE? ? OR REDUCING OR REDUCTION OR "NOT" OR NON)(3N)(INVASIV? OR TRAUMA? OR INTRUSIV?) OR (MINIMAL? OR ATRAUMATIC?)(3N)(ACCESS? OR SURGERY? OR SURGICAL? OR SURGERIES OR PROCEDURE?) OR SMALL?(3N)(INCIS? OR CUT OR CUTS OR CUTTING OR OPENING?)
S6 737155 S ACCESS?(3N)(DEVICE? ? OR INSTRUMENT? ? OR APPARAT? OR TOOL? ? OR IMPLEMENT? ?) OR ENDOSCOP? OR CANNULA? OR CANULA? OR ARTHROSCOP? OR LAPAROSCOP? OR (ENDO OR ARTHRO OR LAPARO)()(SCOPE? ? OR SCOPIC? OR SCOPY OR SCOPIES)
S7 13733670 S EXPAND? OR EXPANSION? OR WIDEN? OR BROADEN? OR ENLARG? OR INCREAS? OR GREATER?
S8 7571323 S SIZE? ? OR WIDTH OR (CROSS OR X)()SECTION? OR DIAMETER? OR CIRCUMFERENC? OR POSITION? OR RADIUS? OR CONFIGURAT?
S9 286 S S2(5N)S3:S4
S10 429535 S S7(5N)S8
S11 4920 S S1(10N)S6
S12 0 S S9 AND S10 AND S11 AND S5
S13 0 S S9 AND S10 AND S11
S14 0 S S9 AND S10 AND S6
S15 7 S S9 AND S6
S16 2 RD (unique items)
S17 2 S S9 AND S10
S18 2 S S17 NOT S15
S19 1 S S2 AND S10 AND S11
S20 1 S S19 NOT (S15 OR S18)
S21 2 S S2 AND S10 AND S6
S22 1 S S21 NOT (S15 OR S18 OR S20)
S23 15856 S S1(5N)S3:S4
S24 0 S S23 AND S10 AND S11 AND S5
S25 0 S S23 AND S10 AND S5 AND S6
S26 6 S S1:S2 AND S3:S4 AND S5 AND S6 AND S10
S27 6 S S26 NOT (S15 OR S18 OR S20 OR S22)
S28 6 RD (unique items)
S29 94 S S1:S2 AND S3:S4 AND S6 AND S10
S30 9 S S1:S2(S)S3:S4(S)S6(S)S10
S31 8 S S30 NOT (S15 OR S18 OR S20 OR S22 OR S27)
S32 5 S S29 NOT (S15 OR S18 OR S20 OR S22 OR S30:S31)
S33 14925 S S7(5N)S6
S34 17 S S33 AND (S9 OR S23)
S35 17 S S34 NOT (S15 OR S18 OR S20 OR S22 OR S27 OR S31)
S36 8 RD (unique items)

? show files

[File 155] **MEDLINE(R)** 1950-2006/Dec 30

**File 155: MEDLINE has resumed updating with UD20061209. Please see HELP NEWS 154 for details.*

[File 5] **Biosis Previews(R)** 1969-2007/Feb W1

[File 73] **EMBASE** 1974-2007/Feb 07

?

18/7/1 (Item 1 from file: 144) **Links**

Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT

17956478 PASCAL No.: 07-0016596

Biomechanical evaluation of a new total posterior-element replacement system

WILKE Hans-Joachim; SCHMIDT Hendrik; WERNER Karin; SCHMOLZ Werner; DRUMM Joerg; WHITESIDES Thomas E JR
Institute of Orthopaedic Research and Biomechanics, University of Ulm, Ulm, Germany; Department of Orthopaedic Surgery, Emory University, Atlanta, GA, United States

Journal: Spine : (Philadelphia, PA. 1976), 2006, 31 (24) 2790-2797
ISSN: 0362-2436 CODEN: SPINDD Availability: INIST-18922 ; 354000159085370060
No. of Refs.: 4 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: United States
Language: English

Study Design. In vitro study to characterize the flexibility of a new total posterior-element system when instrumented to L4-L5 segments. Objective. The goal of this in vitro study was to investigate whether an optimized version of the TOPS implant (Impliant Ltd., Ramat Poleg, Israel) is capable to restore the physiologic motion characteristic of a spinal segment after **facetectomy**. of Background Data. The TOPS **implant** is designed to replace the posterior elements of a functional spinal unit, to provide flexible restabilization and spinal alignment, while maintaining the intervertebral disc. The implant is composed of bilateral pedicle screws, connected with 2 crossbars in the transversal plane. The crossbars are joined together by an elastic element capable of transmitting tensile and compressive loads, as well as shear forces. Methods. Six human cadaver specimens (L3-S1) (median age 61 years: minimum 47 and maximum 74 years) were used for this in vitro experiment. The specimens were loaded with pure moments of +- 7.5 Nm in flexion/ extension, lateral bending, and axial rotation. The following states were investigated: (1) intact; (2) after bilateral laminectomy, including facetectomy of the lower facet joints, of the upper vertebra L4; and (3) after device implantation. The range of motion (ROM), neutral zone, and intradiscal pressure were determined from a third cycle. In a second step, the ROM in axial rotation was determined as a function of different flexion/extension postures. Results. In the neutral **position**, the laminectomy and facetectomy **increased** the median values of the ROM in flexion plus extension, lateral bending right plus left, and significantly in axial rotation left plus right from: 8.2 Degree , 7.6 Degree , 3.6 Degree to 12.1 Degree , 8.5 Degree , and 8.5 Degree (Wilcoxon signed rank test; P< 0.05). After fixation of the implant, the ROM was again reduced to 6.8 Degree , 7.8 Degree , and 3.8 Degree . In a flexed

posture, the ROM in axial rotation was slightly **increased** compared to the neutral **position**. With **increasing** extension, the axial rotation decreased linearly from 3.7 Degree in neutral position to 2.3 Degree in 4 Degree extension in the segment L4-L5. The characteristic of the intradiscal pressure versus load with the implant was similar to that of the intact specimen. Conclusion. The TOPS implant almost ideally restored the ROM in lateral bending and axial rotation compared to that of the intact specimen. In the sagittal plane, 85% of the intact ROM could be obtained. The ROM in axial rotation as a function of flexion and extension angle also mimics the biomechanical behavior of the posterior complex of a lumbar spine. This relationship between ROM and posture emphasizes the importance of a proper implantation.

?

28/7/1 (Item 1 from file: 5) **Links**
Fulltext available through: SCIENCEDIRECT
Biosis Previews(R)

0015906834 **Biosis No.:** 200600252229
Non cannulated dilators

Author: Simonson Robert E
Author Address: Boca Raton, FL USA**USA
Journal: Official Gazette of the United States Patent and Trademark Office Patents JUL 12 2005 2005
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Abstract: A non-**cannulated** dilator that is designed with a rigid elongated solid body and with a judiciously configured tip is utilized as the first dilator of a series of dilators which are inserted into the body of a patient for **minimally invasive spinal surgery** and is made from a solid elongated body, that could be round, ovoid or other **cross sectional configuration** whose **diameter** is **greater** than one and a half (11/2) millimeter, and that includes a tool engaging end portion at the proximal end is sufficiently rigid so as not to bend and has a pointed shaped insertion end portion at the distal end with the point of the pointed end being discreetly blunted and utilized in a surgical procedure as a **replacement** of the typical guide wire and is characterized as providing a "feel" to the surgeon as it penetrates through the tissue and muscle of the patient as it proceeds toward the target.

?

Set Items Description
S1 128555 S SPINE? ? OR SPINAL? OR VERTEBRA? OR INTERVERTEBRA?
S2 155176 S FACET?
S3 896655 S PROSTHES? OR IMPLANT? OR ENDOPROSTHE? OR REPLACEMENT? OR ARTHROPLAST?
S4 1000403 S REPLACEMENT? OR ARTIFICIAL
S5 173673 S (MINIMAL? OR LESS OR REDUCE? ? OR REDUCING OR REDUCTION OR "NOT" OR NON)(3N)(INVASIV? OR TRAUMA? OR INTRUSIV?) OR (MINIMAL? OR ATRAUMATIC?)(3N)(ACCESS? OR SURGERY? OR SURGICAL? OR SURGERIES OR PROCEDURE?) OR SMALL?(3N)(INCIS? OR CUT OR CUTS OR CUTTING OR OPENING?)
S6 273577 S ACCESS?(3N)(DEVICE? ? OR INSTRUMENT? ? OR APPARAT? OR TOOL? ? OR IMPLEMENT? ?) OR ENDOSCOP? OR CANNULA? OR CANULA? OR ARTHROSCOP? OR LAPAROSCOP? OR (ENDO OR ARTHRO OR LAPARO)()(SCOPE? ? OR SCOPIC? OR SCOPY OR SCOPIES)
S7 16124819 S EXPAND? OR EXPANSION? OR WIDEN? OR BROADEN? OR ENLARG? OR INCREAS? OR GREATER?
S8 8840079 S SIZE? ? OR WIDTH OR (CROSS OR X)()SECTION? OR DIAMETER? OR CIRCUMFERENC? OR POSITION? OR RADIUS? OR CONFIGURAT?
S9 476483 S S7(5N)S8
S10 0 S S1:S2(S)S3:S4(S)S5(S)S6(S)S9
S11 1 S S1:S2(S)S3:S4(S)S6(S)S9
S12 6952 S S6(5N)(S7 OR DILAT?)
S13 31 S S1:S2 (S) S3:S4 (S) S12
S14 4 S S13/2004:2005
S15 6 S S13/2006:2007
S16 21 S S13 NOT (S11 OR S14:S15)
S17 11 RD (unique items)

? show files

[File 9] **Business & Industry(R)** Jul/1994-2007/Feb 07

[File 16] **Gale Group PROMT(R)** 1990-2007/Feb 07

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Jan 31

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Jan 31

[File 47] **Gale Group Magazine DB(TM)** 1959-2007/Jan 31

[File 15] **ABI/Inform(R)** 1971-2007/Feb 08

[File 441] **ESPICOM Pharm&Med DEVICE NEWS** 2007/Aug W1

[File 149] **TGG Health&Wellness DB(SM)** 1976-2007/Jan W3

[File 635] **Business Dateline(R)** 1985-2007/Feb 08

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Feb 07

?

17/3,K/1 (Item 1 from file: 16) **Links**
Gale Group PROMT(R)

08947235 **Supplier Number:** 77656235 **(USE FORMAT 7 FOR FULLTEXT)**

NuVasive(TM) Appoints Jack Blair to Board of Directors.
PR Newswire , p NA
August 29 , 2001
Language: English **Record Type:** Fulltext
Document Type: Newswire ; Trade
Word Count: 310

...products to advance minimally invasive spine surgery."

About NuVasive, Inc.

NuVasive is a privately held medical device company that designs, manufactures and markets minimally invasive **spine** surgery systems. The Company's expertise is in minimally invasive posterior access to the **spine**, novel fusion constructs, treatment of nerve related pathology, and alternative treatments for degenerative disc disease. This proprietary technology platform combines guided pathology targeting using a real-time nerve location surveillance system (INS-1(TM)), less traumatic access to the **spine** using novel **expanding cannulae** (Vector(TM)**Cannulae**) and a variety of working instruments and **implants** (Triad(TM) **Spine** EndoArthrodesis system).

MAKE YOUR OPINION COUNT - Click Here
http://tbutton.prnewswire.com/prn/11690X50588717

Instrumentation and methods for preparation of an intervertebral space

Publication number: US2005113842
Publication date: 2005-05-26
Inventor: BERTAGNOLI RUDOLF (DE); FRIESEM TAI (GB); LEHUEC JEAN-CHARLES (FR); MATHEWS HALLETT H (US); EISERMANN LUKAS (US); LIU MINGYAN (FR); JOSSE LOIC (FR); ZHANG JEFFREY (US)
Applicant:
Classification:
- international: ***A61B17/02; A61B17/16; A61B17/17; A61F2/44; A61F2/46;*** *A61B17/86; A61F2/00; A61F2/28; A61F2/30;* **A61B17/02; A61B17/16; A61F2/44; A61F2/46;** A61B17/68; A61F2/00; A61F2/28; A61F2/30; (IPC1-7): A61B17/58
- European: A61B17/02J; A61B17/16K; A61B17/16S4; A61B17/17S4; A61F2/44F; A61F2/46B7
Application number: US20040768354 20040130
Priority number(s): US20040768354 20040130; US20030430473 20030506; WO2003US14170 20030506; US20020378568P 20020506

Abstract of **US2005113842**

An instrument for separating adjacent vertebrae includes a handle assembly and a distal portion at a distal end of the handle assembly. The distal portion includes first and second members movable from an unexpanded configuration for insertion in the disc space toward an expanded configuration to separate the vertebrae. A cutting member of a cutting instrument can be guided by the instrument to prepare the vertebrae for engagement with an implant.

US 20050113842A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2005/0113842 A1

Bertagnoli et al. (43) Pub. Date: May 26, 2005

(54) INSTRUMENTATION AND METHODS FOR PREPARATION OF AN INTERVERTEBRAL SPACE

(76) Inventors: **Rudolf Bertagnoli**, Straubing (DE); **Tai Friesem**, Ingleby Barwick (GB); **Jean-Charles LeHuec**, Pessac (FR); **Hallett H. Mathews**, Richmond, VA (US); **Lukas Eisermann**, Memphis, TN (US); **Mingyan Liu**, Bourg-la-Reine (FR); **Loic Josse**, Palaja (FR); **Jeffrey Zhang**, Collierville, TN (US)

Correspondence Address:
Woodard, Emhardt, Moriarty, McNett & Henry LLP
Bank One Center/Tower
Suite 3700
111 Monument Circle
Indianapolis, IN 46204-5137 (US)

(21) Appl. No.: **10/768,354**

(22) Filed: **Jan. 30, 2004**

Related U.S. Application Data

(63) Continuation of application No. 10/430,473, filed on May 6, 2003, now abandoned, and which is a continuation of application No. PCT/US03/14170, filed on May 6, 2003.

(60) Provisional application No. 60/378,568, filed on May 6, 2002. Provisional application No. 60/378,568, filed on May 6, 2002.

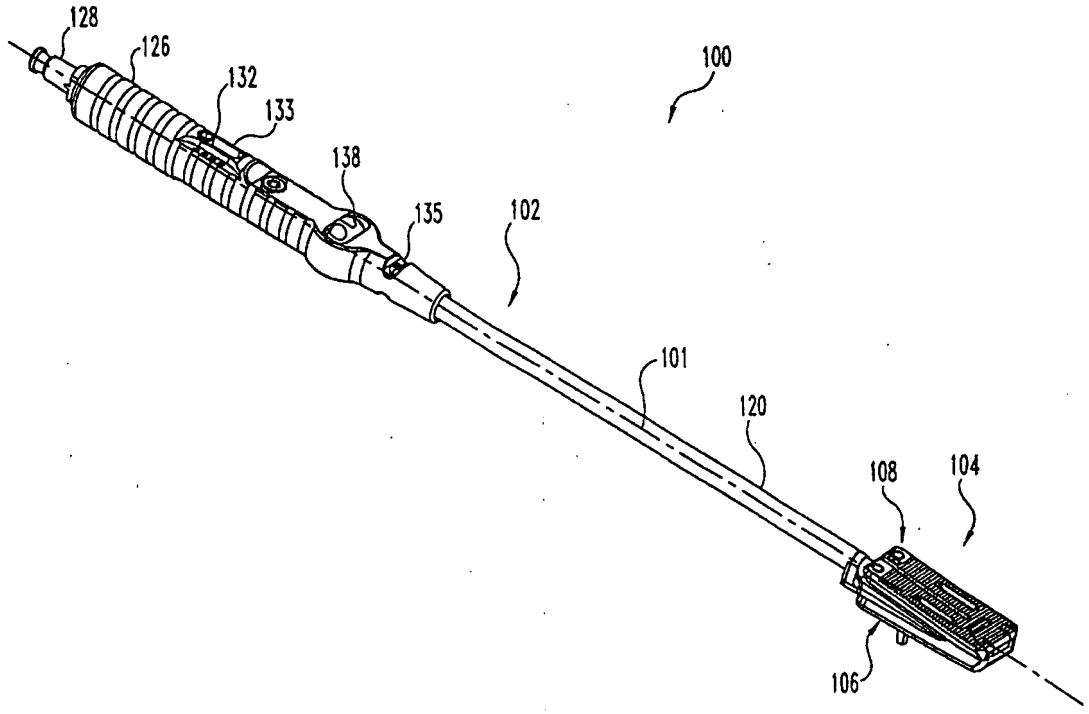
Publication Classification

(51) **Int. Cl.**[7] **A61B 17/58**

(52) **U.S. Cl.** **606/90**

(57) **ABSTRACT**

An instrument for separating adjacent vertebrae includes a handle assembly and a distal portion at a distal end of the handle assembly. The distal portion includes first and second members movable from an unexpanded configuration for insertion in the disc space toward an expanded configuration to separate the vertebrae. A cutting member of a cutting instrument can be guided by the instrument to prepare the vertebrae for engagement with an implant.



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Set      Items   Description
S1          20   S AU=(DIPOTO G? OR DIPOTO, G? OR DI POTO G? OR DI POTO, G?)
S2          10   S S1 AND (SPINE? ? OR SPINAL? OR VERTEBRA? OR FACET? ?)
S3           3   S S2 AND (PROSTHES? OR IMPLANT?)
S4           7   S S2 NOT S3

?  show files
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[File 350] **Derwent WPIX** 1963-2006/UD=200709

**File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit http://www.dialog.com/dwpi/.*

[File 347] **JAPIO** Dec 1976-2006/Oct(Updated 070201)

3/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0015561020 *Drawing available*
WPI Acc no: 2006-125176/200613
XRPX Acc No: N2006-108299
Treatment method of spine, involves advancing guide wire to target location of vertebra through skin of patient along percutaneous path and moving elongate housing such that distal end of elongate housing is set in target location
Patent Assignee: DIPOTO G P (DIPO-I); KEEGAN T E (KEEG-I); LESSIN J M (LESS-I)
Inventor: **DIPOTO G P**; KEEGAN T E; LESSIN J M

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060030850	A1	20060209	US 2004590986	P	20040723	200613	B
			US 2005184568	A	20050719		

Priority Applications (no., kind, date): US 2004590986 P 20040723; US 2005184568 A 20050719

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060030850	A1	EN	75	73	Related to Provisional	US 2004590986

Alerting Abstract US A1
NOVELTY - A guide wire is advanced to a target location of **vertebra** through a skin of patient along a percutaneous path. An **implant** is coupled to the target location of the **vertebra**. An elongate housing having proximal and distal end is advanced until the distal end is adjacent to the target location. A passage is formed in the inner surface of the elongate housing.
USE - For treatment of **spine** of patient by minimal invasive surgery such as postero-lateral fixation **spinal** surgery.
ADVANTAGE - Enables reliable insertion of the surgical instruments to the surgical location through the elongate housing.
DESCRIPTION OF DRAWINGS - The figure shows a perspective view of a surgical system.
10 surgical system
D physician
M monitor
P patient
T table

Title Terms /Index Terms/Additional Words: TREAT; METHOD; **SPINE**; ADVANCE; GUIDE; WIRE; TARGET; LOCATE; **VERTEBRA**; THROUGH; SKIN; PATIENT; PERCUTANEOUS; PATH; MOVE; ELONGATE; HOUSING; DISTAL ; END; SET

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/56	A	I	F	B	20060101

US Classification, Issued: 606060000, 128898000

File Segment: EngPI; ;
DWPI Class: P31

Links

Derwent WPIX

3/5/2 (Item 2 from file: 350)

0014925752 *Drawing available*
WPI Acc no: 2005-273458/200528
Related WPI Acc No: 2005-253322
XRAM Acc no: C2005-085670
XRPX Acc No: N2005-224601

Surgical access device for spinal surgery, includes distal portion, and passage having prosthetic spinal disc implant inserted to interbody space

Patent Assignee: DIPOTO G (DIPO-I); ENDIUS INC (ENDI-N)
Inventor: ANDERSON S; BAKER D; **DIPOTO G**; ROSSIN V; SHLUZAS A

Patent Family (5 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005032358	A2	20050414	WO 2004US33088	A	20041004	200528	B
US 20050090822	A1	20050428	US 2003693815	A	20031024	200530	E
US 20050090833	A1	20050428	US 2003693663	A	20031024	200530	E
US 20050090899	A1	20050428	US 2003693250	A	20031024	200530	E
EP 1691668	A2	20060823	EP 2004794435	A	20041004	200655	E
			WO 2004US33088	A	20041004		

Priority Applications (no., kind, date): US 2003693815 A 20031024; US 2003693663 A 20031024; US 2003693250 A 20031024; US 2003508784 P 20031002; US 2004842651 A 20040510

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2005032358	A2	EN	216	120		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN					

	MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
EP 1691668	A2	EN			PCT Application	WO 2004US33088
					Based on OPI patent	WO 2005032358
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR					

Alerting Abstract WO A2

NOVELTY - A surgical access device has a passage and a distal portion. It is actuatable between a first configuration where the passage has a first cross-sectional area at the distal portion for insertion into the patient and a second configuration where the passage has an enlarged cross-sectional area at the distal portion. It can provide access to an interbody space. The passage has a prosthetic **spinal** disc **implant** inserted to the interbody space.
DESCRIPTION - INDEPENDENT CLAIMS are also included for:

1. a system for performing a minimally invasive spinal disc **replacement** on a patient, comprising the inventive surgical access device (4504), and an instrument capable of advancing the prosthetic spinal disc **implant** (4500) **through** the passage;
2. a system for stabilizing at least two adjacent vertebrae of the spine **of** a patient, **comprising** the inventive access device, and a motion preserving, stabilization device for insertion through the passage and attachment between the at least two adjacent vertebrae;
3. a system for **fixing** at least two adjacent vertebrae of the spine of a **patient**, comprising the **access** device, and a first fastener for transfacet fixation and for insertion through the passage;
4. replacing an intervertebral disc in an interbody space of a spine of a patient, comprising inserting an access **device** through an incision in a skin of the patient, expanding the access device from a first configuration to a second configuration, and delivering a prosthetic spinal disc implant through the access device; and
5. **a** system **for** replacing a portion of a disc having a nucleus and an annulus, comprising the inventive access device, an annulotomy tool for forming an aperture (4536) in the annulus through the access device, and a disc evacuation tool for removing a portion of the nucleus through the access device.

USE - For use in spinal surgery (claimed).
ADVANTAGE - The inventive surgical access device can reduce the trauma of spine surgery by reducing the size of the incision and the degree **of** muscle stripping to access the vertebrae.
DESCRIPTION OF DRAWINGS - The figure is a schematic view illustrating a method of inserting a spinal implant into an interbody space through an access device.
4532 Viewing element
4500 Prosthetic spinal disc implant
4504 Surgical access device
4536 Aperture
4580 Gripping apparatus

Title Terms /Index Terms/Additional Words: SURGICAL; ACCESS; DEVICE; **SPINE**; DISTAL; PORTION; PASSAGE; **PROSTHESIS**; DISC; **IMPLANT**; INSERT; SPACE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0001/313	A	I		R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/32	A	I		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0017/88	A	N		R	20060101
A61B-0019/00	A	N		R	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I		R	20060101
A61B-0001/313	A	I	F	B	20060101
A61B-0017/32	A	I	L	B	20060101
A61B-0017/34	A	I	L	B	20060101
A61B-0017/70	A	I	L	B	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/46	A	I	L	B	20060101
A61B-0001/313	C	I		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/32	C	I		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0017/88	C	N		R	20060101
A61B-0019/00	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606061000, 606099000, 623016110, 623011110, 623017110

File Segment: CPI; EngPI
DWPI Class: B04; B07; D22; P31; P32; P34
Manual Codes (CPI/A-N): B04-F01; B04-N02; B11-C04; D09-C01D

Links

Derwent WPIX

0014905542 *Drawing available*
WPI Acc no: 2005-253322/200526
Related WPI Acc No: 2005-273458
XRPX Acc No: N2005-208570

Replacing method for intervertebral disc in an interbody space of a spine of a patient by expanding an access device from one configuration to a configuration with an enlarged cross sectional area at a distal portion

Patent Assignee: ANDERSON S (ANDE-I); BAKER D (BAKE-I); DIPOTO G (DIPO-I); ROSSIN V (ROSS-I); SHLUZAS A E (SHLU-I)
Inventor: ANDERSON S; BAKER D; **DIPOTO G**; ROSSIN V; SHLUZAS A E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050075644	A1	20050407	US 2003508784	P	20031002	200526	B
			US 2004842651	A	20040510		

Priority Applications (no., kind, date): US 2003508784 P 20031002; US 2004842651 A 20040510

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050075644	A1	EN	80	82	Related to Provisional	US 2003508784

Alerting Abstract US A1
NOVELTY - An access device (20) is inserted through an incision in a skin of the patient. An access device is expanded from one configuration to a configuration with an enlarged cross sectional area at a distal portion (210). The distal portion extends across a portion of the interbody space when access device assumes an expanded state. A prosthetic **spinal** disc **implant** is delivered through the access device.
USE - For replacing an intervertebral disc in an interbody space of a **spine** of a patient.
ADVANTAGE - Enables the reduction of trauma of **spine** surgery by reducing the size of the incision and the degree of muscle stripping in order to access the **vertebrae**.
DESCRIPTION OF DRAWINGS - The figure shows a sectional view of the expander apparatus.
20 Access device
22 Proximal portion
24 Skirt portion
210 Distal portion

Title Terms /Index Terms/Additional Words: REPLACE; METHOD; INTERVERTEBRAL; DISC; SPACE; **SPINE**; PATIENT; EXPAND; ACCESS; DEVICE; ONE; CONFIGURATION; ENLARGE; CROSS; SECTION; AREA; DISTAL; PORTION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58			Main		"Version 7"

4/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0015891990 *Drawing available*
WPI Acc no: 2006-423668/200643
XRPX Acc No: N2006-350016

Expandable dilator for spinal surgical system has distal portion and proximal portion, with proximal portion used to actuate expandable distal portion

Patent Assignee: ENDIUS INC (ENDI-N); ANDERSON S J (ANDE-I); DEGEORGE C P (DEGE-I); DIPOTO G P (DIPO-I); SHLUZAS A E (SHLU-I); WILLIAMS J (WILL-I)
Inventor: SHLUZAS A E; ANDERSON S J; DEGEORGE C P; **DIPOTO G P**; WILLIAMS J

Patent Family (2 patents, 111 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006058079	A2	20060601	WO 2005US42465	A	20051122	200643	B
US 20060195017	A1	20060831	US 2004630180	P	20041122	200657	E
			US 2005285226	A	20051122		

Priority Applications (no., kind, date): US 2005285226 A 20051122; US 2004630180 P 20041122

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2006058079	A2	EN	151	93		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20060195017	A1	EN			Related to Provisional	US 2004630180

Alerting Abstract WO A2

NOVELTY - The dilator (4500) includes an expandable distal portion (4512) and a proximal portion (4508) for actuating the distal portion. The distal portion is comprised of elongate members (4524A,4524B). Moving the proximal portion moves at least one of the elongate members to retract tissue.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a **spine** treatment method.

USE - For **spinal** surgical system.

ADVANTAGE - Provides minimally invasive access to **spine** such that varying procedures can be performed via access device.

DESCRIPTION OF DRAWINGS - The figure is a perspective view of the dilator.
4500 Dilator
4508 Proximal portion
4512 Distal portion
4524A,4524B Elongate members
4530 Outer surface

Title Terms /Index Terms/Additional Words: EXPAND; DILATED; **SPINE**; SURGICAL; SYSTEM; DISTAL; PORTION; PROXIMITY; ACTUATE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/02	A	I	F	B	20060101
A61B-0017/34	A	I	L	B	20060101
A61B-0017/70	A	I	L	B	20060101
A61B-0017/88	A	I	L	B	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/46	A	I	L	B	20060101
A61B-0001/32	A	I	F	B	20060101

US Classification, Issued: 600210000

File Segment: EngPI; ;
DWPI Class: P31; P32

Links
Derwent WPIX
4/5/2 (Item 2 from file: 350)

0015340031 *Drawing available*
WPI Acc no: 2005-690288/200571
XRPX Acc No: N2005-566628
Access device for performing spinal surgical, has elongated body that defines passage for receiving surgical instrument accessing surgical location, and another passage that receives viewing tooling for visualizing surgical location
Patent Assignee: DIPOTO G P (DIPO-I); ENDIUS INC (ENDI-N); SHLUZAS A E (SHLU-I)
Inventor: **DIPOTO G P**; SHLUZAS A E

Patent Family (4 patents, 108 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type

WO 2005096968	A1	20051020	WO 2005US10609	A	20050331	200571	B
US 20050251192	A1	20051110	US 2004558296	P	20040331	200574	E
			US 200594822	A	20050330		
US 20060069404	A1	20060330	US 2004558296	P	20040331	200624	E
			US 200594822	A	20050330		
			US 2005241811	A	20050930		
EP 1742585	A1	20070117	EP 2005731598	A	20050331	200706	E
			WO 2005US10609	A	20050331		

Priority Applications (no., kind, date): US 2004558296 P 20040331; US 200594822 A 20050330; US 2005241811 A 20050930

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2005096968	A1	EN	147	91		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20050251192	A1	EN			Related to Provisional	US 2004558296
US 20060069404	A1	EN			Related to Provisional	US 2004558296
					C-I-P of application	US 200594822
EP 1742585	A1	EN			PCT Application	WO 2005US10609
					Based on OPI patent	WO 2005096968
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR					

Alerting Abstract WO A1

NOVELTY - An elongated body (4010) transforms between contracted state for insertion into a patient, and expanded state for providing access to a surgical location. The elongated body defines a passage (4066) for receiving a surgical instrument accessing the surgical location, and another passage (4012) that receives a viewing tooling for visualizing the surgical location.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

a. a surgical location accessing method; and
b. a surgical location accessing and visualizing system.

USE - For performing **spinal** surgical.
ADVANTAGE - Reduces trauma during surgical procedure. Offers discrete visualization of surgical location.
DESCRIPTION OF DRAWINGS - The figure shows the isometric view of the access device.
4010 Elongated body
4012 Another passage
4028 Distal portion
4032 Proximal portion
4066 Passage

Title Terms /Index Terms/Additional Words: ACCESS; DEVICE; PERFORMANCE; **SPINE**; SURGICAL; ELONGATE; BODY; DEFINE; PASSAGE; RECEIVE; INSTRUMENT; LOCATE; VIEW; TOOLING

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0001/313	A	N		R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/17	A	N		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0019/00	A	I		R	20060101
A61M-0029/00	A	I	F	B	20060101
A61B-0001/313	C	N		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/16	C	N		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0019/00	C	I		R	20060101
A61M-0029/00	C	I	L	B	20060101

US Classification, Issued: 606191000, 606198000

File Segment: EngPI; ;
DWPI Class: P31; P34

Links
Derwent WPIX
4/5/3 (Item 3 from file: 350)

0015008381 *Drawing available*
WPI Acc no: 2005-356291/200536
Related WPI Acc No: 2005-182474
XRPX Acc No: N2005-290821

Access device for surgical location within patient, has sleeve moved relative to elongate housing along longitudinal axis so as to increase or decrease length of passage

Patent Assignee: DIPOTO G P (DIPO-I); ENDIUS INC (ENDI-N); KIRK K D (KIRK-I); SHLUZAS A E (SHLU-I); STOECKMANN W (STOE-I)

Inventor: **DIPOTO G**; **DIPOTO G P**; KIRK K D; SHLUZAS A E; STOECKMANN W; SHLUZAS A

Patent Family (5 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005046492	A1	20050526	WO 2004US35072	A	20041025	200536	B
US 20050245942	A1	20051103	US 2003514559	P	20031024	200573	E
			US 2004927633	A	20040826		
			US 2004972987	A	20041025		
US 20050273131	A1	20051208	US 2003497763	P	20030826	200580	E
			US 2003497822	P	20030826		
			US 2003514559	P	20031024		
			US 2004545587	P	20040218		
			US 2004579643	P	20040615		
			US 2004926579	A	20040826		
US 20050273133	A1	20051208	US 2003497763	P	20030826	200580	E
			US 2003497822	P	20030826		
			US 2003514559	P	20031024		
			US 2004545587	P	20040218		
			US 2004579643	P	20040615		
			US 2004927633	A	20040826		
EP 1694223	A1	20060830	EP 2004796123	A	20041025	200657	E
			WO 2004US35072	A	20041025		

Priority Applications (no., kind, date): US 2004972987 A 20041025; US 2003497822 P 20030826; US 2003497763 P 20030826; US 2004927633 A 20040826; US 2004579643 P 20040615; US 2004545587 P 20040218; US 2003514559 P 20031024; US 2004926579 A 20040826

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2005046492	A1	EN	298	287	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL				

	SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20050245942	A1	EN			Related to Provisional	US 2003514559
					C-I-P of application	US 2004927633
US 20050273131	A1	EN			Related to Provisional	US 2003497763
					Related to Provisional	US 2003497822
					Related to Provisional	US 2003514559
					Related to Provisional	US 2004545587
					Related to Provisional	US 2004579643
US 20050273133	A1	EN			Related to Provisional	US 2003497763
					Related to Provisional	US 2003497822
					Related to Provisional	US 2003514559
					Related to Provisional	US 2004545587
					Related to Provisional	US 2004579643
EP 1694223	A1	EN			PCT Application	WO 2004US35072
					Based on OPI patent	WO 2005046492
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR					

Alerting Abstract WO A1

NOVELTY - An elongate housing (11004) has an inner surface (11012) defining a passage (11020) to insert surgical instrument into a surgical location. A sleeve (11006) is moved relative to the elongate housing along the longitudinal axis so as to increase or decrease the length of the passage. The cross-sectional area of the passage in the lower position is set more than the area of the passage in the upper position.

DESCRIPTION - An INDEPENDENT CLAIM is also included for method of providing access to surgical location of patient.

USE - Access device for surgical location within patient during minimal invasive procedures such as endoscope procedures, treatment of **spine**.

ADVANTAGE - Permits movement of the sleeve to vary cross-sectional area of the passage and to vary height of the access device. Reduces size of the access device, by enabling to vary length of the passage.

DESCRIPTION OF DRAWINGS - The figure shows a schematic view of the access device.

11004 elongate housing

11006 sleeve

11012 inner surface

11008 outer surface

11020 passage

Title Terms /Index Terms/Additional Words: ACCESS; DEVICE; SURGICAL; LOCATE; PATIENT; SLEEVE; MOVE; RELATIVE; ELONGATE; HOUSING; LONGITUDE; AXIS; SO; INCREASE; DECREASE; LENGTH; PASSAGE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-029/00			Main		"Version 7"
A61B-0017/34	A	I		R	20060101
A61M-0029/00	A	I		R	20060101
A61B-0017/34	A	I	F	B	20060101
A61B-0017/34	C	I		R	20060101
A61M-0029/00	C	I		R	20060101

US Classification, Issued: 606108000, 606198000, 606198000

File Segment: EngPI; ;
DWPI Class: P31; P34

Links

Derwent WPIX

4/5/4 (Item 4 from file: 350)

0014834781 *Drawing available*
WPI Acc no: 2005-182474/200519
Related WPI Acc No: 2005-356291
XRPX Acc No: N2005-152141

Access device for retracting tissue to provide access to spinal location within patient during spinal surgery, has main body which can be expanded between first configuration for insertion into patient, and second configuration

Patent Assignee: DIPOTO G P (DIPO-I); ENDIUS INC (ENDI-N); KIRK K D (KIRK-I); LOWERY G (LOWE-I); LOWERY G L (LOWE-I); ROYEN D V (ROYE-I); SHLUZAS A E (SHLU-I); STOECKMANN W (STOE-I)
Inventor: **DIPOTO G**; **DIPOTO G P**; KIRK K D; KIRKI K; KIRKI K D; LOWERY G; LOWERY G L; ROYEN D V; SHLUZAS A; SHLUZAS A E; STOECKMANN W; VAN ROYEN D

Patent Family (5 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005018466	A2	20050303	WO 2004US27761	A	20040826	200519	B
US 20050075540	A1	20050407	US 2003678744	A	20031002	200525	E
US 20050273132	A1	20051208	US 2003497763	P	20030826	200581	E
			US 2003497822	P	20030826		
			US 2003678744	A	20031002		
			US 2003514559	P	20031024		
			US 2004545587	P	20040218		
			US 2004579643	P	20040615		
			US 2004926840	A	20040826		

EP 1667584	A2	20060614	EP 2004782275	A	20040826	200641	E
			WO 2004US27761	A	20040826		
US 20060271057	A1	20061130	US 2003497763	P	20030826	200680	E
			US 2003497822	P	20030826		
			US 2003678744	A	20031002		
			US 2006489788	A	20060720		

Priority Applications (no., kind, date): US 2003497822 P 20030826; US 2003497763 P 20030826; US 2003678744 A 20031002; US 2003514559 P 20031024; US 2004545587 P 20040218; US 2004579643 P 20040615; US 2004926840 A 20040826; US 2006489788 A 20060720

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2005018466	A2	EN	270	284		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20050273132	A1	EN			Related to Provisional	US 2003497763
					Related to Provisional	US 2003497822
					C-I-P of application	US 2003678744
					Related to Provisional	US 2003514559
					Related to Provisional	US 2004545587
					Related to Provisional	US 2004579643
EP 1667584	A2	EN			PCT Application	WO 2004US27761
					Based on OPI patent	WO 2005018466
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR					
US 20060271057	A1	EN			Related to Provisional	US 2003497763
					Related to Provisional	US 2003497822
					Division of application	US 2003678744

Alerting Abstract WO A2

NOVELTY - A passage extends through an elongate main body between proximal and distal ends. The passage is defined by a smooth metal inner surface which extends entirely around perimeter of passage. The main body can be expanded between first configuration for insertion into patient, and second configuration in which cross-sectional area of passage at distal end is greater than that at proximal end.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a retractor.
USE - For retracting tissue to provide access to a **spinal** location within a patient during a **spinal** surgery.
ADVANTAGE - Allows minimally invasive access to **spine**, and allows execution of one or more procedures using only one access device.
DESCRIPTION OF DRAWINGS - The figure shows the perspective view of access device.
20 Access device
22 Proximal wall portion
24 Skirt portion
26 Initial dimension
30 Rivet

Title Terms /Index Terms/Additional Words: ACCESS; DEVICE; RETRACT; TISSUE; **SPINE**; LOCATE; PATIENT; SURGICAL; MAIN; BODY; CAN; EXPAND; FIRST; CONFIGURATION; INSERT; SECOND

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-005/00			Main		"Version 7"
A61B-0001/31	A	N		R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/02	A	I		R	20060101
A61B-0017/17	A	N		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0019/00	A	I		R	20060101
A61M-0029/00	A	I		R	20060101
A61F-0005/00	A	I	F	B	20060101
A61B-0001/31	C	N		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/02	C	I		R	20060101
A61B-0017/16	C	N		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0019/00	C	I		R	20060101
A61M-0029/00	C	I		R	20060101

US Classification, Issued: 600203000, 600245000, 606198000, 606198000, 606086000

File Segment: EngPI; ;
DWPI Class: P31; P32; P34

Links

Derwent WPIX

4/5/5 (Item 5 from file: 350)

0014190598 *Drawing available*

WPI Acc no: 2004-376023/200435

XRPX Acc No: N2004-299105

Body structure shielding apparatus, has mounting portion placed at proximal end portion for mounting apparatus to internal passage, and unit is connected to mounting portion to release mounting portion with respect to passage

Patent Assignee: ENDIUS INC (ENDI-N); DIPOTO G P (DIPO-I); PAGLIUCA J J (PAGL-I)

Inventor: **DIPOTO G P**; PAGLIUCA J J

Patent Family (4 patents, 104 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004039235	A2	20040513	WO 2003US28286	A	20030911	200435	B
AU 2003272308	A1	20040525	AU 2003272308	A	20030911	200468	E
AU 2003272308	A8	20051103	AU 2003272308	A	20030911	200629	E
US 20070016223	A1	20070118	US 2002280799	A	20021025	200707	E
			US 2006421044	A	20060530		

Priority Applications (no., kind, date): US 2002280799 A 20021025; US 2006421044 A 20060530

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004039235	A2	EN	39	27		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003272308	A1	EN			Based on OPI patent	WO 2004039235
AU 2003272308	A8	EN			Based on OPI patent	WO 2004039235
US 20070016223	A1	EN			Division of application	US 2002280799

Alerting Abstract WO A2

NOVELTY - The apparatus has an elongated body portion (102) for insertion into an internal passage of a conduit

(20). A distal tip portion (110) covers a body structure without a displacement of the body structure. A mounting portion (104) is placed at a proximal end portion (22) for mounting the apparatus to the passage. A unit is connected to the mounting portion to release the mounting portion with respect to the passage.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for performing a surgical procedure on a patient.
USE - Used for shielding a body structure during a minimally invasive surgical procedure (claimed) e.g. **spinal** surgery on a patient.
ADVANTAGE - The apparatus provides the access and visibility to the body to perform a minimally invasive surgical procedure. The apparatus is self supporting and easily positionable during the surgical procedure, therefore the apparatus can be repositioned without disturbing other apparatus.
DESCRIPTION OF DRAWINGS - The drawing shows a sectional view of a body structure shielding apparatus.
20Conduit
22Proximal end portion
102Elongated body portion
104Mounting portion
110Distal tip portion

Title Terms /Index Terms/Additional Words: BODY; STRUCTURE; SHIELD; APPARATUS; MOUNT; PORTION; PLACE; PROXIMITY; END; INTERNAL; PASSAGE ; UNIT; CONNECT; RELEASE; RESPECT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/00			Main		"Version 7"
A61B-0017/00	A	I		R	20060101
A61B	S	I		R	20060101
A61B-0017/00	C	I		R	20060101

US Classification, Issued: 606108000

File Segment: EngPI; ;
DWPI Class: P31; P32

Links
Derwent WPIX
4/5/6 (Item 6 from file: 350)

0014065437 *Drawing available*
WPI Acc no: 2004-248340/200423
Related WPI Acc No: 2000-162980; 2002-113413; 2002-180004; 2003-402774; 2004-449477; 2004-499535; 2005-111972
XRPX Acc No: N2004-197036

Surgical procedure e.g. spinal fixation performing system for bone structure e.g. vertebral column, has wall portion defining internal passage and configuration with cross-sectional area for insertion into body tissue

Patent Assignee: ENDIUS INC (ENDI-N)
Inventor: ANDERSON S J; **DIPOTO G P**; PAGLIUCA J J; SHLUZAS A E; UNGER J D

Patent Family (2 patents, 98 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004021899	A1	20040318	WO 2002US28106	A	20020905	200423	B
AU 2002323586	A1	20040329	AU 2002323586	A	20020905	200459	E
			WO 2002US28106	A	20020905		

Priority Applications (no., kind, date): WO 2002US28106 A 20020905

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004021899	A1	EN	67	37		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
AU 2002323586	A1	EN			PCT Application	WO 2002US28106
					Based on OPI patent	WO 2004021899

Alerting Abstract WO A1

NOVELTY - The system has an expandable conduit (22) with a wall portion defining an internal passage there through and a configuration having a cross-sectional area at a distal portion (24) for percutaneous insertion into a body tissue. The portion is movable against the tissue to another configuration. A drive unit is configured for insertion into the passage to secure clamping objects to respective fasteners.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of performing surgical procedures on bone structures.

USE - Used for performing a surgical procedure e.g. **spinal** fixation on a bone structure e.g. **vertebral** column of a patient.

ADVANTAGE - The system provides an access and an increased surgical space in resistant tissue e.g. muscle tissue to perform minimally invasive surgical procedures.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of an expandable conduit.

22 Conduit

24 Distal portion

28 Expanded dimension

30 Rivet

46 Slots

Title Terms /Index Terms/Additional Words: SURGICAL; PROCEDURE; **SPINE**; FIX; PERFORMANCE; SYSTEM; BONE; STRUCTURE; **VERTEBRA**; COLUMN; WALL; PORTION; DEFINE; INTERNAL; PASSAGE; CONFIGURATION; CROSS; SECTION; AREA; INSERT; BODY; TISSUE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56			Main		"Version 7"

File Segment: EngPI; ;
DWPI Class: P31

Links

Derwent WPIX

4/5/7 (Item 7 from file: 350)

0012941420 *Drawing available*
WPI Acc no: 2003-018095/
XRPX Acc No: N2003-013968

Retainer of bone portions e.g. spinal vertebrae, has clamping piece which engages second end of fastener and connecting ring to connect and position ring and fastener in multiple angular positions

Patent Assignee: ENDIUS INC (ENDI-N)
Inventor: **DIPOTO G P**; SHLUZAS A E

Patent Family (2 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20020143328	A1	20021003	US 2001821666	A	20010329	200301	B
US 6641583	B2	20031104	US 2001821666	A	20010329	200374	E

Priority Applications (no., kind, date): US 2001821666 A 20010329

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20020143328	A1	EN	14	10	

Alerting Abstract US A1

NOVELTY - A connecting ring has a passage through which the second end of a fastener is extended. A clamping piece engages the second end of the fastener and connecting ring to connect and position the ring and fastener in multiple angular positions relative to the connecting ring. The fastener is positioned in several angular positions so

that the longitudinal axis of the fastener extends through the passage.
USE - Used for retaining bone portions e.g. **spinal vertebrae**.
ADVANTAGE - Prevents relative movement between the first and second portions of the connecting ring.
DESCRIPTION OF DRAWINGS - The figure is a perspective view of a bone retainer.

Title Terms /Index Terms/Additional Words: RETAIN; BONE; PORTION ; **SPINE**; **VERTEBRA**; CLAMP; PIECE; ENGAGE; SECOND; END; FASTEN; CONNECT; RING; POSITION; MULTIPLE; ANGULAR

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/70			Main		"Version 7"

US Classification, Issued: 606061000, 606061000, 606069000

File Segment: EngPI; ;
DWPI Class: P31

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Set     Items   Description
S1      45824   S SPINE? ? OR SPINAL? OR VERTEBRA? OR INTERVERTEBRA?
S2      11620   S FACET?
S3     285050   S PROSTHES? OR IMPLANT? OR ENDOPROSTHE? OR REPLACEMENT? OR ARTHROPLAST?
S4     205194   S REPLACEMENT? OR ARTIFICIAL
S5      48177   S (MINIMAL? OR LESS OR REDUCE? ? OR REDUCING OR REDUCTION OR "NOT" OR
NON)(3N)(INVASIV? OR TRAUMA? OR INTRUSIV?) OR (MINIMAL? OR ATRAUMATIC?)(3N)(ACCESS? OR
SURGERY? OR SURGICAL? OR SURGERIES OR PROCEDURE?) OR SMALL?(3N)(INCIS? OR CUT OR CUTS OR
CUTTING OR OPENING?)
S6     105981   S ACCESS?(3N)(DEVICE? ? OR INSTRUMENT? ? OR APPARAT? OR TOOL? ? OR
IMPLEMENT? ?) OR ENDOSCOP? OR CANNULA? OR CANULA? OR ARTHROSCOP? OR LAPAROSCOP? OR (ENDO
OR ARTHRO OR LAPARO)()(SCOPE? ? OR SCOPIC? OR SCOPY OR SCOPIES)
S7    3201800   S EXPAND? OR EXPANSION? OR WIDEN? OR BROADEN? OR ENLARG? OR INCREAS? OR
GREATER?
S8       1538   S S6(5N)S7
S9          5   S S1:S2(S)S3:S4(S)S5(S)S8
S10      5475   S S7(5N)(SHEATH? OR RETRACT?)
S11         2   S S1:S2(S)S3:S4(S)S5(S)S10
S12         2   S S11 NOT S9
S13        21   S S1:S2 AND S3:S4 AND S5 AND (S8 OR S10)
S14        14   S S13 NOT (S9 OR S12)
S15       974   S (SPINE? ? OR SPINAL? OR SPINOUS? OR VERTEBRA? OR
INTERVERTEBRA?)(3N)PROCESS?
S16     10370   S S3:S4(5N)(BETWEEN OR ADJACEN?)
S17        66   S S15 (S)S16
S18        23   S S17 AND S5
S19         5   S S17 AND (S6 OR SHEATH? OR RETRACT?)
S20         1   S S19 NOT S18

?  show files
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[File 350] **Derwent WPIX** 1963-2006/UD=200709

**File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit http://www.dialog.com/dwpi/.*

[File 347] **JAPIO** Dec 1976-2006/Oct(Updated 070201)


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9/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0016317520 *Drawing available*
WPI Acc no: 2007-033689/200704
Related WPI Acc No: 2005-038798; 2005-038799; 2007-033486
XRPX Acc No: N2007-025446

Method of delivering and positioning implant in intervertebral disc, involves compressing the implant, constraining implant with cannula, positioning the cannula to place implant in disc, and expanding the implant after release in the disc

Patent Assignee: GORENSEK B (GORE-I); KAVANAUGH S (KAVA-I); LAMBRECHT G H (LAMB-I); MOORE R K (MOOR-I)
Inventor: GORENSEK B; KAVANAUGH S; LAMBRECHT G H; MOORE R K

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060253121	A1	20061109	US 2004873074	A	20040621	200704	B
			US 2006479886	A	20060630		

Priority Applications (no., kind, date): US 2004873074 A 20040621; US 2006479886 A 20060630

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060253121	A1	EN	32	7	Continuation of application	US 2004873074

Alerting Abstract US A1

NOVELTY - Delivering and positioning an implant (100) in an intervertebral disc, involves inserting into the disc, a cannula (120) slidably engaged with an advancer (130) that is coupled to an implant, which exhibits a compressed profile along at least one axis when constrained by the cannula; compressing the implant along the axis; constraining the implant with the cannula; positioning cannula to place the implant beyond an exterior aspect of the disc; releasing the implant; and expanding the implant along the axis, through relative motion of the cannula and the advancer, using an expander (175).

DESCRIPTION - Delivering and positioning an implant (100) in an intervertebral disc, involves inserting into the intervertebral disc, a cannula (120) slidably engaged with an advancer (130) that is coupled to the implant, which exhibits a compressed profile along at least one axis when constrained by the cannula; compressing the implant along the axis; constraining the implant with the cannula; positioning the cannula to place the implant beyond an exterior aspect of the intervertebral disc; releasing the implant; expanding the implant along the axis, through relative motion of the cannula and the advancer, using an expander (175); uncoupling the implant from the advancer; removing the cannula from the disc; and removing the advancer from the disc.

USE - To deliver and position an implant in an intervertebral disc having a defect or iatrogenic hole; useful for intervertebral disc repair.

ADVANTAGE - The method delivers and positions the implant in the intervertebral disc in a **minimally invasive** manner, as the **implant** is delivered, positioned and expanded in the **intervertebral** disc, after initial orientation and compression of the **implant**. Hence, the method can prevent/reduce exacerbation of the existing defect or iatrogenic

hole, in the **intervertebral** disc. The method provides precise access to desired site in the **intervertebral** disc, enabling effective **implantation**.
DESCRIPTION OF DRAWINGS - The figure shows a step of expanding the **implant** along an axis using an expander, for delivering and positioning the **implant** in an **intervertebral** disc.
100 **implant**
120 cannula
130 advancer
175 expander
310 defective anulus.

Title Terms /Index Terms/Additional Words: METHOD; DELIVER; POSITION; IMPLANT; INTERVERTEBRAL; DISC; COMPRESS; CONSTRAIN; CANNULA; PLACE; EXPAND; AFTER; RELEASE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/88	A	I	F	B	20060101
A61F-0002/44	A	N	L	B	20060101

US Classification, Issued: 606101000, 623017160

File Segment: EngPI; ;
DWPI Class: P31; P32

9/5/2 (Item 2 from file: 350) **Links**
Derwent WPIX

0016185213 *Drawing available*
WPI Acc no: 2006-716853/200674
XRAM Acc no: C2006-218474
XRPX Acc No: N2006-563572
Expandable cannula system, useful for diagnostic and therapeutic applications, has expandable elements located along and between free edges of leaflets, for controlling expansion of cannula at leading end of leaflets

Patent Assignee: BOEHM F H (BOEH-I); MELNICK B D (MELN-I)
Inventor: BOEHM F H; MELNICK B D

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060217754	A1	20060928	US 200586300	A	20050323	200674	B

Priority Applications (no., kind, date): US 200586300 A 20050323

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20060217754	A1	EN	21	15	

Alerting Abstract US A1

NOVELTY - An expandable cannula system (A) has leaflets (3,7) each of which has a leading end (4) and trailing end (5), with expandable elements arranged between each of the leaflets. A cannula of collapsed and expanded configurations, is composed of the leaflets. A series of expandable elements is located along and between the free edges of the leaflets.

DESCRIPTION - An expandable cannula system (A) has leaflets (3,7) each of which has a leading end (4) and trailing end (5), with expandable elements arranged between each of the leaflets. A cannula of collapsed and expanded configurations, is composed of the leaflets. A series of expandable elements is located along and between the free edges of the leaflets. The expandable elements control the expansion of the cannula at the leading end, for distracting the craniocaudal direction and mediolateral direction.

USE - (A) Is useful for performing diagnostic and therapeutic treatment on spine.

ADVANTAGE - (A) Can be utilized for both diagnostic and therapeutic intervention using simple structure.

DESCRIPTION OF DRAWINGS - The figure shows an elevational view of the expandable cannula system.

3,7 leaflets

4 leading end

5 trailing end

10 lateral aspect

11 connector

Title Terms /Index Terms/Additional Words: EXPAND; CANNULA; SYSTEM; USEFUL; DIAGNOSE; THERAPEUTIC; APPLY; ELEMENT; LOCATE; FREE; EDGE; LEAFLET; CONTROL; LEADING; END

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-0029/00	A	I	F	B	20060101

US Classification, Issued: 606191000

File Segment: CPI; EngPI

DWPI Class: A96; B07; D22; P34

Manual Codes (CPI/A-N): A12-V03D; B11-C04B; D09-C; D09-D

9/5/3 (Item 3 from file: 350) **Links**

Derwent WPIX

0015307478 *Drawing available*
WPI Acc no: 2005-657660/200567
Related WPI Acc No: 2003-440593; 2003-556815; 2005-065269; 2005-272782
XRPX Acc No: N2005-538872

Working channel creation method for performing minimal invasive surgery, involves passing implant through lateral passage formed in distal end of cannula after removing dilator

Patent Assignee: DEPUY SPINE INC (DEPU-N)
Inventor: SIMONSON R E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050216002	A1	20050929	US 200121809	A	20011030	200567	B
			US 200530218	A	20050106		

Priority Applications (no., kind, date): US 200121809 A 20011030; US 200530218 A 20050106

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050216002	A1	EN	11	9	Division of application	US 200121809

Alerting Abstract US A1
NOVELTY - A dilator (12) is extended from proximate a vertebra to external to the skin incision. A dilator retractor (30) or a cannula is inserted over the dilator. The dilator is removed so that the bore of cannula defines a working channel from skin incision to proximate the vertebra. An implant is passed through a lateral passage formed in the distal end of cannula.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of positioning an implant relative to a bone anchor.
USE - For creating working channel from skin incision to proximate vertebra when performing minimal invasive surgery
ADVANTAGE - Enables surgeon to perform surgical procedure while providing sufficient opening to permit the use of microscope and lighting to view the area of target. Provides opportunities to surgeon to operate in areas of spine that are not operable with minimal invasive surgery.
DESCRIPTION OF DRAWINGS - The figure shows the exploded perspective view of a non-**cannulated** dilator, a series of graduated **increased** diameter dilators and the **cannula** or dilator retractor.
12 Dilator
14 Non-cannula dilator
16 Solid body
24 Tool engaging end portion
30 Dilator retractor

Title Terms /Index Terms/Additional Words: WORK; CHANNEL; CREATION; METHOD; PERFORMANCE; MINIMUM; INVADE; SURGICAL; PASS; IMPLANT; THROUGH; LATERAL; PASSAGE; FORMING;

DISTAL; END; CANNULA; AFTER; REMOVE; DILATED

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-029/00			Main		"Version 7"
A61B-017/58			Secondary		"Version 7"

US Classification, Issued: 606061000, 606191000

File Segment: EngPI; ;
DWPI Class: P31; P34

9/5/4 (Item 4 from file: 350) **Links**
Derwent WPIX

0014925752 *Drawing available*
WPI Acc no: 2005-273458/200528
Related WPI Acc No: 2005-253322
XRAM Acc no: C2005-085670
XRPX Acc No: N2005-224601
Surgical access device for spinal surgery, includes distal portion, and passage having prosthetic spinal disc implant inserted to interbody space
Patent Assignee: DIPOTO G (DIPO-I); ENDIUS INC (ENDI-N)
Inventor: ANDERSON S; BAKER D; DIPOTO G; ROSSIN V; SHLUZAS A

Patent Family (5 patents, 107 countries)

Patent Number	Kind	Date	Application Number				
WO 2005032358	A2	20050414	WO 2004US33088	A			
US 20050090822	A1	20050428	US 2003693815	A			
US 20050090833	A1	20050428	US 2003693663	A			
US 20050090899	A1	20050428	US 2003693250	A		0330	E
EP 1691668	A2	20060823	EP 2004794435	A	004	200655	E
			WO 2004US33088	A	20041004		

Current application

Priority Applications (no., kind, date): US 2003693815 A 20031024; US 2003693663 A 20031024; US 2003693250 A 20031024; US 2003508784 P 20031002; US 2004842651 A 20040510

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2005032358	A2	EN	216	120		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
EP 1691668	A2	EN			PCT Application	WO 2004US33088
					Based on OPI patent	WO 2005032358
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR					

Alerting Abstract WO A2

NOVELTY - A surgical access device has a passage and a distal portion. It is actuatable between a first configuration where the passage has a first cross-sectional area at the distal portion for insertion into the patient and a second configuration where the passage has an enlarged cross-sectional area at the distal portion. It can provide access to an interbody space. The passage has a prosthetic spinal disc implant inserted to the interbody space.
DESCRIPTION - INDEPENDENT CLAIMS are also included for:

1. a system for performing a minimally invasive spinal disc replacement on a patient, comprising the inventive surgical access device (4504), and an instrument capable of advancing the prosthetic spinal disc implant (4500) through the passage;
2. a system for stabilizing at least two adjacent vertebrae of the spine of a patient, comprising the inventive access device, and a motion preserving, stabilization device for insertion through the passage and attachment between the at least two adjacent vertebrae;
3. a system for fixing at least two adjacent vertebrae of the spine of a patient, comprising the access device, and a first fastener for transfacet fixation and for insertion through the passage;
4. replacing an intervertebral disc in an interbody space of a spine of a patient, comprising inserting an access device through an incision in a skin of the patient, expanding the access device from a first configuration **to** a **second configuration**, and delivering a prosthetic spinal disc implant through the access device; and
5. **a** system **for** replacing a portion of a disc having a nucleus and an annulus, comprising the inventive access device, an annulotomy tool for forming an aperture (4536) in the annulus through the access device, and a disc evacuation tool for removing a portion of the nucleus through the access device.

USE - For use in spinal surgery (claimed).
ADVANTAGE - The inventive surgical access device can reduce the trauma of spine surgery by reducing the size of the **incision** and **the** degree **of** muscle stripping to access the vertebrae.
DESCRIPTION OF DRAWINGS - The figure is a schematic view illustrating a method of inserting a spinal implant into an interbody space through an access device.
4532 Viewing element

4500 Prosthetic spinal disc implant
4504 Surgical access device
4536 Aperture
4580 Gripping apparatus

Title Terms /Index Terms/Additional Words: SURGICAL; ACCESS; DEVICE; SPINE; DISTAL; PORTION; PASSAGE; PROSTHESIS; DISC; IMPLANT; INSERT; SPACE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0001/313	A	I		R	20060101
A61B-0017/00	A	N		R	20060101
A61B-0017/32	A	I		R	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0017/88	A	N		R	20060101
A61B-0019/00	A	N		R	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I		R	20060101
A61B-0001/313	A	I	F	B	20060101
A61B-0017/32	A	I	L	B	20060101
A61B-0017/34	A	I	L	B	20060101
A61B-0017/70	A	I	L	B	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/46	A	I	L	B	20060101
A61B-0001/313	C	I		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/32	C	I		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0017/88	C	N		R	20060101
A61B-0019/00	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606061000, 606099000, 623016110, 623011110, 623017110

File Segment: CPI; EngPI
DWPI Class: B04; B07; D22; P31; P32; P34

Manual Codes (CPI/A-N): B04-F01; B04-N02; B11-C04; D09-C01D

9/5/5 (Item 5 from file: 350) **Links**
Derwent WPIX

0014691211 *Drawing available*
WPI Acc no: 2005-038799/200504
Related WPI Acc No: 2005-038798; 2007-033486; 2007-033689
XRPX Acc No: N2005-033949
Implant delivery and positioning device has advancer which is positioned at least partially within cannula, wherein distal end of advancer comprises a coupling mechanism
Patent Assignee: GORENSEK B (GORE-I); KAVANAUGH S (KAVA-I); LAMBRECHT G H (LAMB-I); MOORE R K (MOOR-I)
Inventor: GORENSEK B; KAVANAUGH S; LAMBRECHT G H; MOORE R K

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040260305	A1	20041223	US 2003480276	P	20030620	200504	B
			US 2004873073	A	20040621		

Priority Applications (no., kind, date): US 2003480276 P 20030620; US 2004873073 A 20040621

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20040260305	A1	EN	31	7	Related to Provisional	US 2003480276

Alerting Abstract US A1
NOVELTY - The implant delivery and positioning device (10) includes a cannula (15) and an advancer (30) positioned at least partially within the cannula. The distal end of the advancer comprises a coupling mechanism (135). At least a portion of the coupling mechanism is coupled to the advancer and to the implant (100).
DESCRIPTION - The distal end of the cannula comprises one or more expanders operable to expand the implant positioned beyond the innermost lamella of a disc annulus.
USE - For delivering and positioning implant within intervertebral disc.
ADVANTAGE - Provides implant delivery and positioning device for **minimally invasive**, yet precise and effective **implantation**.
DESCRIPTION OF DRAWINGS - The figures are front views of the **implant** delivery and positioning device.
10 **Implant** delivery and positioning device
15 Cannula
30 Advancer
100 **Implant**
135 Coupling mechanism

Title Terms /Index Terms/Additional Words: IMPLANT; DELIVER; POSITION; DEVICE; ADVANCE; CANNULA; DISTAL; END; COMPRISE; COUPLE; MECHANISM

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61F-0002/44	A	N		R	20060101
A61F-0002/46	A	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61F-0002/44	C	N		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606099000

File Segment: EngPI; ;
DWPI Class: P31; P32

?

12/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0015581165 *Drawing available*
WPI Acc no: 2006-145329/200615
Related WPI Acc No: 2004-070960; 2006-445076
XRPX Acc No: N2006-125720
Surgical access assembly used for treatment of pondylosis, has deployment catheter with balloon which is inflated to expand distal end of percutaneous access sheath, for passing surgical instrument in treatment site
Patent Assignee: SDGI HOLDINGS INC (SDGI-N)
Inventor: NGUYEN T V; PHAM T V; SHAOLIAN S M; TEITELBAUM G P

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060036276	A1	20060216	US 2002188732	A	20020702	200615	B
			US 2005200144	A	20050810		

Priority Applications (no., kind, date): US 2002188732 A 20020702; US 2005200144 A 20050810

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060036276	A1	EN	18	15	Continuation of application	US 2002188732

Alerting Abstract US A1
NOVELTY - The surgical access assembly has a percutaneous access sheath with an insertion sheath. A deployment catheter (300) has a balloon (310) and a guide wire lumen (304). The balloon is inflated to expand distal end of access sheath from a smaller cross sectional area to a larger cross sectional area for enabling passing of surgical instrument in the treatment site. A guide wire guides the access assembly to the treatment site.
USE - For use in minimally invasive procedure used for insertion of orthopedic fixation and stabilization implant such as spinal stabilization rod used for treatment of disease such as pondylosis, spondylolisthesis, vertebral instability, spinal stenosis, degenerated, herniated or degenerated and herniated intervertebral discs.
ADVANTAGE - Facilitates insertion of the spinal stabilization implant into the surgical treatment site by forming larger path for passing surgical instrument into the treatment site.
DESCRIPTION OF DRAWINGS - The figure shows the front view of the access **sheath expansion** catheter.
300 deployment catheter
302 inner tube
304 guide wire lumen
306 outer tube
310 balloon

Title Terms /Index Terms/Additional Words: SURGICAL; ACCESS; ASSEMBLE; TREAT; DEPLOY; CATHETER; BALLOON; INFLATE; EXPAND; DISTAL; END; PERCUTANEOUS; SHEATH; PASS; INSTRUMENT; SITE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-0029/00	A	I	F	B	20060101

US Classification, Issued: 606192000

File Segment: EngPI; ;
DWPI Class: P34

?

14/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0015913435
WPI Acc no: 2006-445076/200645
Related WPI Acc No: 2004-070960; 2006-145329
XRPX Acc No: N2006-364822

Providing percutaneous access to facilitate insertion of orthopedic spinal stabilization implant involves inserting elongated tubular structure having small cross-section and expanding to greater cross-sectional profile

Patent Assignee: NGUYEN T V (NGUY-I); PHAM T V (PHAM-I); SHAOLIAN S M (SHAO-I); TEITELBAUM G P (TEIT-I)
Inventor: NGUYEN T V; PHAM T V; SHAOLIAN S M; TEITELBAUM G P

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060142795	A1	20060629	US 2002188732	A	20020702	200645	B
			US 2005200144	A	20050810		
			US 2006331140	A	20060113		

Priority Applications (no., kind, date): US 2005200144 A 20050810; US 2002188732 A 20020702; US 2006331140 A 20060113

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060142795	A1	EN	16	15	Continuation of application	US 2002188732
					Division of application	US 2005200144

Alerting Abstract US A1

NOVELTY - Providing percutaneous access to facilitate insertion of e.g. orthopedic **spinal** stabilization **implant** involves percutaneously inserting an elongated tubular structure having a small cross-sectional profile; removing a tubular restraint from the elongate tubular structure; and expanding the elongate tubular structure to a greater cross-sectional profile.

USE - For providing percutaneous access (claimed) to facilitate insertion of orthopedic **spinal** stabilization **implant**.

ADVANTAGE - The **minimally invasive procedure** inserts an orthopedic fixation or stabilization **implant** into the body, such as a formed in situ **spinal** stabilization rod by insertion through the portals of adjacent bone anchors. This provides a smooth channel to facilitate the passage of another deployment catheter carrying an inflatable orthopedic fixation device at its distal end.

Title Terms /Index Terms/Additional Words: PERCUTANEOUS; ACCESS; FACILITATE; INSERT; ORTHOPAEDIC; **SPINE**; STABILISED; **IMPLANT**; ELONGATE; TUBE; STRUCTURE; CROSS; SECTION; EXPAND; GREATER; PROFILE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-0029/00	A	I	F	B	20060101

US Classification, Issued: 606191000

File Segment: EngPI; ;
DWPI Class: P34

14/5/2 (Item 2 from file: 350) **Links**
Derwent WPIX

0015911198 *Drawing available*
WPI Acc no: 2006-442839/200645
XRPX Acc No: N2006-362774
Implantable artificial joint complex for treating spinal pathology, has expandable joint segment fitted within target joint space, and inferior anchors engaging segment to engage bony structure adjacent to joint space
Patent Assignee: ARCHUS ORTHOPEDICS INC (ARCH-N)
Inventor: MCLEER T J

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060085075	A1	20060420	US 2004616093	P	20041004	200645	B
			US 2005244420	A	20051004		

Priority Applications (no., kind, date): US 2004616093 P 20041004; US 2005244420 A 20051004

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20060085075	A1	EN	33	19	Related to Provisional	US 2004616093

Alerting Abstract US A1
NOVELTY - The joint complex has an expandable joint segment (130) fitted within a target joint space. Inferior anchors (110, 120) engage the expandable joint segment to engage a bony structure adjacent to the target joint space. The expandable joint segment is coated with a material that promotes bony in-growth. The expandable joint segment forms a spacer between joint surfaces and a capsule surrounding a **facet** joint.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of **implanting** a patient specific **artificial** joint complex.
USE - Used for treating a **spinal** pathology.
ADVANTAGE - The arrangement of the joint complex facilitates **less-invasive**, **minimally-invasive** and/or **non-invasive** correction, restoration and augmentation of anatomical characteristics of anatomical features of joints

such as the **facet** joint, thus allowing easy anatomical variations and wide range of **spinal** pathologies to be treated.
DESCRIPTION OF DRAWINGS - The drawing shows a perspective side view of a device for **implanting** a patient specific **artificial** joint complex.
106 Longitudinal central axis
110, 120 Inferior anchors
130 Expandable joint segment

Title Terms /Index Terms/Additional Words: **IMPLANT**; **ARTIFICIAL**; JOINT; COMPLEX; TREAT; **SPINE**; PATHOLOGICAL; EXPAND; SEGMENT; FIT; TARGET; SPACE; INFERIOR; ANCHOR; ENGAGE; BONE; STRUCTURE; ADJACENT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-0002/44	A	I	F	B	20060101

US Classification, Issued: 623017120

File Segment: EngPI;.;
DWPI Class: P32

14/5/3 (Item 3 from file: 350) **Links**
Derwent WPIX

0015232191 *Drawing available*
WPI Acc no: 2005-582256/200559
Related WPI Acc No: 2004-052980; 2004-634888; 2005-689792
XRPX Acc No: N2005-477821
Tissue retracting system for use in surgery has dilation instrument with two tissue dilators positionable one over the other to enlarge an opening in the patient tissue
Patent Assignee: BRANCH C L (BRAN-I); FOLEY K T (FOLE-I); MELKENT A J (MELK-I); ROEHM T E (ROEH-I)
Inventor: BRANCH C L; FOLEY K T; MELKENT A J; ROEHM T E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050192485	A1	20050901	US 2002180658	A	20020626	200559	B
			US 2005121344	A	20050503		

Priority Applications (no., kind, date): US 2002180658 A 20020626; US 2005121344 A 20050503

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050192485	A1	EN	17	14	Continuation of application	US 2002180658

Alerting Abstract US A1

NOVELTY - The retractor (20) has two portions (22,42) that form a working channel (50) in communication with the exterior. The channel is enlargeable by laterally moving each portion away from one another and pivoting each distal end away from one another. The dilation instrument has two tissue dilators positionable one over the other to enlarge an opening in the patient tissue.

DESCRIPTION - The working channel is sized for positioning about the last inserted tissue dilator.

USE - For use in **minimally invasive surgery** e.g. **spinal** surgery including disc **replacement**, **implant** insertion, interbody fusion, foramenotomy, laminectomy, laminotomy, **facetectomy** on a patient.

ADVANTAGE - Reduced recovery time to patient and post operative pain due to minimal dissection of tissue.

DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the retractor in an insertion state.

20 Retractor

22,42 Portions

44 Distal end

50 Working channel

Title Terms /Index Terms/Additional Words: TISSUE; RETRACT; SYSTEM; SURGICAL; DILATED; INSTRUMENT; TWO; POSITION; ONE; ENLARGE; OPEN; PATIENT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-001/32			Main		"Version 7"

US Classification, Issued: 600210000

File Segment: EngPI; ;
DWPI Class: P31

14/5/4 (Item 4 from file: 350) **Links**
Derwent WPIX

0014905542 *Drawing available*
WPI Acc no: 2005-253322/200526
Related WPI Acc No: 2005-273458
XRPX Acc No: N2005-208570
Replacing method for intervertebral disc in an interbody space of a spine of a patient by expanding an access device from one configuration to a configuration with an enlarged cross sectional area at a distal portion
Patent Assignee: ANDERSON S (ANDE-I); BAKER D (BAKE-I); DIPOTO G (DIPO-I); ROSSIN V (ROSS-I);

SHLUZAS A E (SHLU-I)
Inventor: ANDERSON S; BAKER D; DIPOTO G; ROSSIN V; SHLUZAS A E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050075644	A1	20050407	US 2003508784	P	20031002	200526	B
			US 2004842651	A	20040510		

Priority Applications (no., kind, date): US 2003508784 P 20031002; US 2004842651 A 20040510

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050075644	A1	EN	80	82	Related to Provisional	US 2003508784

Alerting Abstract US A1
NOVELTY - An access device (20) is inserted through an incision in a skin of the patient. An **access device** is **expanded** from one configuration to a configuration with an enlarged cross sectional area at a distal portion (210). The distal portion extends across a portion of the interbody space when **access device** assumes an **expanded** state. A prosthetic **spinal** disc **implant** is delivered through the access device.
USE - For replacing an **intervertebral** disc in an interbody space of a **spine** of a patient.
ADVANTAGE - Enables the **reduction** of **trauma** of **spine** surgery by reducing the size of the incision and the degree of muscle stripping in order to access the **vertebrae**.
DESCRIPTION OF DRAWINGS - The figure shows a sectional view of the expander apparatus.
20 Access device
22 Proximal portion
24 Skirt portion
210 Distal portion

Title Terms /Index Terms/Additional Words: REPLACE; METHOD; **INTERVERTEBRAL**; DISC; SPACE; **SPINE**; PATIENT; EXPAND; ACCESS; DEVICE; ONE; CONFIGURATION; ENLARGE; CROSS; SECTION; AREA; DISTAL; PORTION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58			Main		"Version 7"

US Classification, Issued: 606090000

File Segment: EngPI; ;
DWPI Class: P31

14/5/5 (Item 5 from file: 350) **Links**
Derwent WPIX

0014717652 *Drawing available*
WPI Acc no: 2005-065269/200507
Related WPI Acc No: 2003-440593; 2003-556815; 2005-272782; 2005-657660
XRPX Acc No: N2005-056514

Working channel creating method for minimally invasive spinal surgery e.g. laminotomy, involves inserting cannula over dilator, and removing dilator, where bore of cannula defines channel from skin incision to vertebrae

Patent Assignee: DEPUY SPINE INC (DEPU-N)
Inventor: SIMONSON R E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050004593	A1	20050106	US 200124221	A	20011030	200507	B
			US 2004899707	A	20040726		

Priority Applications (no., kind, date): US 200124221 A 20011030; US 2004899707 A 20040726

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20050004593	A1	EN	7	5	Division of application	US 200124221

Alerting Abstract US A1
NOVELTY - The method involves making a skin incision, and inserting a distal end of a non-cannulated dilator (10) into the incision. The distal end is advanced into proximity to a **vertebra**, where the dilator extends from proximate the **vertebra** to external to the incision. A cannula (21) is inserted over the dilator and the dilator is removed. A bore of the cannula defines a working channel from the incision to the **vertebrae**.
DESCRIPTION - An INDEPENDENT CLAIM is also included for a dilation system comprising a non-cannulated dilator and a cannula.
USE - Used for creating a working channel that is utilized for **minimally invasive spinal surgery** e.g. laminotomy, medial **facetectomy**, foraminotomy, nerve root retraction and discectomy.
ADVANTAGE - The method defines the channel from the skin incision to the **vertebrae** such that a surgeon when performing the procedure will get a feel as an instrument passes through tissue and muscle of the patient so that the surgeon will have a good sense of what portion of the anatomy is being penetrated. The method thus helps in assisting the surgeon in avoiding likelihood of passing through a **spinal** canal, and hence eliminates injury to the delicate neutral anatomy.
DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a series of sequentially enlarged diameter dilators that are inserted over a dilator in order to **widen** a cavity to insert a **cannula**.
10 Non-cannulated dilator
12 Cylindrical solid elongated body
14 Tool receiving portion
16 Pointed parting tip portion

21 Cannula

Title Terms /Index Terms/Additional Words: WORK; CHANNEL; METHOD ; MINIMUM; INVADE; **SPINE**; SURGICAL; INSERT; CANNULA; DILATED; REMOVE ; BORE; DEFINE; SKIN; INCISION; **VERTEBRA**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-029/00			Main		"Version 7"

US Classification, Issued: 606191000

File Segment: EngPI; ;
DWPI Class: P34

14/5/6 (Item 6 from file: 350) **Links**
Derwent WPIX

0014691210 *Drawing available*
WPI Acc no: 2005-038798/200504
Related WPI Acc No: 2005-038799; 2007-033486; 2007-033689
XRPX Acc No: N2005-033948
Method for delivering and positioning implant within intervertebral disc, involve removing cannula and expander from intervertebral disc after implant delivered in intervertebral disc is completely expanded
Patent Assignee: GORENSEK B (GORE-I); INTRINSIC THERAPEUTICS INC (INTR-N); KAVANAUGH S (KAVA-I); LAMBRECHT G H (LAMB-I); MOORE R K (MOOR-I)
Inventor: GORENSEK B; KAVANAUGH S; LAMBRECHT G; LAMBRECHT G H; MOORE R; MOORE R K

Patent Family (5 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040260300	A1	20041223	US 2003480276	P	20030620	200504	B
			US 2004873074	A	20040621		
WO 2004112584	A2	20041229	WO 2004US19811	A	20040621	200504	E
EP 1638485	A2	20060329	EP 2004755766	A	20040621	200623	E
			WO 2004US19811	A	20040621		
AU 2004249291	A1	20041229	AU 2004249291	A	20040621	200654	E
KR 2006070489	A	20060623	WO 2004US19811	A	20040621	200675	E
			KR 2005724505	A	20051220		

Priority Applications (no., kind, date): US 2003480276 P 20030620; US 2004873074 A 20040621

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20040260300	A1	EN	23	7	Related to Provisional	US 2003480276
WO 2004112584	A2	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
EP 1638485	A2	EN			PCT Application	WO 2004US19811
					Based on OPI patent	WO 2004112584
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR					
AU 2004249291	A1	EN			Based on OPI patent	WO 2004112584
KR 2006070489	A	KO			PCT Application	WO 2004US19811
					Based on OPI patent	WO 2004112584

Alerting Abstract US A1

NOVELTY - A **cannula** (15) is **retracted** to initially **expand** an **implant** (100). One or more expanders are then advanced to further **expand** the **implant**. The **cannular** is then advanced to completely **expand** the **implant**. The **implant** is uncoupled from the **implant**, and the **cannula** and **expander** are then removed from the **intervertebral** disc.

DESCRIPTION - The cannula coupled to a depth stop is provided by slidably engaging with an advancer (30) coupled to the **implant**. The **implant** operates to exhibit a compressed profile along one or more axes. The **implant** is compressed along the first axis, and the cannula is inserted in the **intervertebral** disc. The depth stop is placed at a position adjacent the external surface of the **intervertebral** disc, and the **implant** is delivered relative to the position of the depth stop. The cannula is positioned such that the **implant** is positioned beyond the innermost surface of the annulus. The cannula is rotated to rotate the **implant** in a range of about 80 degrees to about 120 degrees. An INDEPENDENT CLAIM is also included for a method for delivering **implant** in **intervertebral** disc.

USE - For delivering and positioning **implant** within **intervertebral** disc.

ADVANTAGE - Delivers therapeutic **implant** in **minimally invasive** manner for **intervertebral** disc treatment. Provides accurate and precise placement of **implant**, while still being **minimally invasive**. Allows integrated reorientation, expansion, and delivery of **implant** in confined and limiting environment.

DESCRIPTION OF DRAWINGS - The figure shows a delivery device for **implant**.

15 Cannula

25 Advancer ring handle

30 Advancer

100 **Implant**

135 **Implant** coupling member

Title Terms /Index Terms/Additional Words: METHOD; DELIVER; POSITION; **IMPLANT**; **INTERVERTEBRAL**; DISC; REMOVE; CANNULA; EXPAND; AFTER; COMPLETE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/58	A	I	F	B	20060101
A61B-0017/70	A	I	F	B	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/72	A	N		R	20060101
A61B-0017/88	A	I	F	V	20060101
A61B-0017/88	A	I		R	20060101
A61F-0002/44	A	N		R	20060101
A61F-0002/46	A	I		R	20060101
A61F-0002/44	A	I	F	B	20060101
A61B-0017/68	C	N		R	20060101
A61B-0017/70	C	I	L	B	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61F-0002/44	C	N		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606086000

File Segment: EngPI; ;
DWPI Class: P31; P32

14/5/7 (Item 7 from file: 350) **Links**
Derwent WPIX

0014312308 *Drawing available*
WPI Acc no: 2004-499535/200447
Related WPI Acc No: 2002-113413; 2003-402774; 2004-248340; 2004-449477; 2005-111972
XRPX Acc No: N2004-394620
Treating method for spine of patient, involves performing multilevel procedure across three adjacent vertebrae through access device after actuating access device to have enlarged cross-sectional area at distal portion
Patent Assignee: ENDIUS INC (ENDI-N); PAGLIUCA J (PAGL-I); SHLUZAS A (SHLU-I); UNGER J D (UNGE-I)
Inventor: PAGLIUCA J; SHLUZAS A; UNGER J D

Patent Family (2 patents, 106 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040133201	A1	20040708	US 2000630077	A	20000801	200447	B
			WO 2002US28106	A	20020905		
			US 2002280489	A	20021025		
			US 2003658736	A	20030909		
WO 2005023123	A1	20050317	WO 2004US29567	A	20040909	200521	E

Priority Applications (no., kind, date): US 2002280489 A 20021025; WO 2002US28106 A 20020905; US 2000630077 A 20000801; US 2003658736 A 20030909

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20040133201	A1	EN	37	37	C-I-P of application	US 2000630077
					C-I-P of application	WO 2002US28106
					C-I-P of application	US 2002280489
					C-I-P of patent	US 6530926
WO 2005023123	A1	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

Alerting Abstract US A1

NOVELTY - A fusion device is **implanted** to an interbody space between two of three adjacent **vertebrae** via an anterior approach. An access device in first configuration having a first cross-sectional area at distal portion is inserted into a patient. The access device is actuated to a second configuration having an enlarged cross-sectional area at distal portion which extends across portions of **vertebrae**.

DESCRIPTION - Multilevel procedure is then performed across the three adjacent **vertebrae** through the access device.

USE - For treating **spine** of patient.

ADVANTAGE - Provides **minimally invasive access** to the **spine**, such that a variety of procedures, and preferably the entire procedure, can be performed via a single access device.

DESCRIPTION OF DRAWINGS - The figure is a partial cross-sectional view showing one stage of the method for treating **spine** of patient.

24 Skirt portion

56,58 Cut-out portions

604 Housings

650 Elongated member

Title Terms /Index Terms/Additional Words: TREAT; METHOD; **SPINE**; PATIENT; PERFORMANCE; MULTILEVEL; PROCEDURE; THREE; ADJACENT; **VERTEBRA**; THROUGH; ACCESS; DEVICE; AFTER; ACTUATE; ENLARGE; CROSS; SECTION; AREA; DISTAL; PORTION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/34; A61B-017/56			Main		"Version 7"
A61B-017/70			Secondary		"Version 7"

US Classification, Issued: 606061000, 606198000

File Segment: EngPI; ;
DWPI Class: P31

14/5/8 (Item 8 from file: 350) **Links**
Derwent WPIX

0013352715 *Drawing available*
WPI Acc no: 2003-440593/200341
Related WPI Acc No: 2003-556815; 2005-065269; 2005-272782; 2005-657660
XRPX Acc No: N2003-351776
Non-cannulated dilator for use in minimal invasive surgery has solid body dimensioned such that tissue and muscle being penetrated by dilator will afford resistive force while being inserted towards target of patient
Patent Assignee: DEPUY SPINE INC (DEPU-N); SIMONSON R E (SIMO-I)
Inventor: SIMONSON R E

Patent Family (2 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20030083689	A1	20030501	US 200124221	A	20011030	200341	B
US 6916330	B2	20050712	US 200124221	A	20011030	200546	E

Priority Applications (no., kind, date): US 200124221 A 20011030

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes

US 20030083689	A1	EN	6	5	

Alerting Abstract US A1
NOVELTY - An elongated solid body (12) with a pointed end (16) has a diameter enough to make it rigid. The solid body is dimensioned such that the tissue and muscle being penetrated by the dilator (10) will afford a resistive force while being inserted towards the target of the patient.
USE - For use in **minimal invasive surgery** to enlarge the area where the surgery will be performed on a patient.
ADVANTAGE - Enables surgeon performing the procedure to have a feel of the instrument while instrument passes through the tissue and muscle of the patient so that surgeon will have a good sense of what portion of the anatomy is being penetrated and avoid the **spinal** canal.
DESCRIPTION OF DRAWINGS - The figure shows a cut view of the anatomy of the patient with the inserted dilator.
10 Dilator
12 Solid body
16 Pointed end

Title Terms /Index Terms/Additional Words: NON; CANNULA; DILATED ; MINIMUM; INVADE; SURGICAL; SOLID; BODY; DIMENSION; TISSUE; MUSCLE; PENETRATE; AFFORD; RESISTOR; FORCE; INSERT; TARGET; PATIENT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-029/00			Main		"Version 7"

US Classification, Issued: 606191000, 606191000

File Segment: EngPI; ;
DWPI Class: P34

14/5/9 (Item 9 from file: 350) **Links**
Derwent WPIX

0012903340 *Drawing available*
WPI Acc no: 2002-116271/
Related WPI Acc No: 1996-179678; 1996-279365; 1997-470596; 2000-255672
XRPX Acc No: N2002-086789
Fusion cage designed to be implanted using a posterior approach to the vertebral bone structures, has a proximal trailing end and a distal leading end, the proximal end having a diameter which is smaller than that of the distal end
Patent Assignee: HOWMEDICA OSTEONICS CORP (HOWN); SURGICAL DYNAMICS INC (SURG-N)

Inventor: JAYNE K; KLYCE H A; PAVLOV P W M; WINSLOW C J

Patent Family (4 patents, 4 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 1175878	A2	20020130	EP 1995119558	A	19951212	200216	B
			EP 2001123254	A	19951212		
EP 1175878	B1	20030326	EP 1995123254	A	19951212	200323	E
DE 69530137	E	20030430	DE 69530137	A	19951212	200336	E
			EP 2001123254	A	19951212		
ES 2192553	T3	20031016	EP 2001123254	A	19951212	200377	E

Priority Applications (no., kind, date): EP 1995123254 A 19951212; US 1994354364 A 19941212

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
EP 1175878	A2	EN	25	31	Division of application	EP 1995119558
					Division of patent	EP 716840
Regional Designated States,Original	DE ES FR GB IT					
EP 1175878	B1	EN				
Regional Designated States,Original	DE ES FR GB IT					
DE 69530137	E	DE			Application	EP 2001123254
					Based on OPI patent	EP 1175878
ES 2192553	T3	ES			Application	EP 2001123254
					Based on OPI patent	EP 1175878

Alerting Abstract EP A2

NOVELTY - The fusion cage has a cage body having a proximal end and a distal end (426,424), the distal end having a diameter which is larger than that of the proximal end. The distal end further is rounded with e.g. a bull nose to facilitate the insertion of the cage body relative to one or more bone structures. The distal end could alternatively have a snub nose with or without a starter turn of a thread. The snub nose has a starter diameter that is smaller than the diameter of the distal end.

DESCRIPTION - The cage body is preferably conically-shaped, because the normal lordosis of the **vertebral** bone structures defines a wedged-shape space for a **vertebral** disk between, for example, lumbar **vertebrae**. The conically-shaped body cage can be sized and selected in order to maintain or enlarge upon the normal lordosis.

USE - For fusing together of adjacent **vertebral** bodies or bone structures, especially by using a posterior approach to the **vertebral** bone structures.

ADVANTAGE - Allows **surgery** which is **minimally invasive** as the tissues can be can be spread using a set of **cannula** of **increasing** size and a **small opening** through which a fusion cage can be inserted.

DESCRIPTION OF DRAWINGS - The figure shows a partially sectioned side view of the posterior fusion cage.

420 fusion cage

422 cage body

423 conical portion
424, 426 distal/proximal trailing end
440 thread
454 apertures

Title Terms /Index Terms/Additional Words: FUSE; CAGE; DESIGN; **IMPLANT**; POSTERIOR; APPROACH; **VERTEBRA**; BONE; STRUCTURE; PROXIMITY; TRAILING; END; DISTAL; LEADING; DIAMETER; SMALLER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/44			Main		"Version 7"
A61F-002/46			Secondary		"Version 7"

File Segment: EngPI; ;
DWPI Class: P32

14/5/12 (Item 12 from file: 350) **Links**
Derwent WPIX

0010166420 *Drawing available*
WPI Acc no: 2000-475594/200041
Related WPI Acc No: 2000-053368; 2000-053403; 2000-062577; 2000-161234; 2000-256314; 2000-465601; 2000-465647; 2000-543652; 2000-656406; 2000-665184; 2000-665185; 2000-665186; 2001-327217; 2001-488078; 2001-637816; 2002-214238; 2002-214496; 2003-328171; 2003-370594
XRPX Acc No: N2000-354848
Nerve surveillance system for use in spinal surgery, includes cannula with expandable distal end having multiple inward tapering petals with nerve surveillance electrode disposed in each petal
Patent Assignee: NUVASIVE INC (NUVA-N)
Inventor: BLEWETT J; BLEWETT J J; CHRISTOPHER K; CHRISTOPHER T K; KELLEHER B S; KELLEHER S; MARINO F; MARINO J F; STONE C W; STONE W

Patent Family (10 patents, 85 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2000038574	A1	20000706	WO 1999US12651	A	19990604	200041	B
AU 199944226	A	20000731	AU 199944226	A	19990604	200050	E
EP 1146816	A1	20011024	EP 1999927283	A	19990604	200171	E
			WO 1999US12651	A	19990604		
US 6564078	B1	20030513	US 1998113651	P	19981223	200335	E

			US 1999120663	P	19990212		
			US 1999123268	P	19990308		
			US 1999325998	A	19990604		
JP 2003524452	W	20030819	WO 1999US12651	A	19990604	200356	E
			JP 2000590531	A	19990604		
US 20030195405	A1	20031016	US 1998113651	P	19981223	200369	E
			US 1999120663	P	19990219		
			US 1999123268	P	19990308		
			US 1999325998	A	19990604		
			US 2003431619	A	20030507		
EP 1146816	B1	20051012	EP 1999927283	A	19990604	200568	E
			WO 1999US12651	A	19990604		
DE 69927717	E	20060223	DE 69927717	A	19990604	200617	E
			EP 1999927283	A	19990604		
			WO 1999US12651	A	19990604		
US 7079883	B2	20060718	US 1998113651	P	19981223	200648	E
			US 1999120663	P	19990219		
			US 1999123268	P	19990308		
			US 1999325998	A	19990604		
			US 2003431619	A	20030507		
DE 69927717	T2	20060720	DE 69927717	A	19990604	200652	E
			EP 1999927283	A	19990604		
			WO 1999US12651	A	19990604		

Priority Applications (no., kind, date): US 2003431619 A 20030507; US 1999120663 P 19990212; US 1999123268 P 19990308; US 1999120663 P 19990219; US 1998113651 P 19981223; US 1999325998 A 19990604

Patent Details

Patent Number	**Kind**	**Lan**	**Pgs**	**Draw**	**Filing Notes**	
WO 2000038574	A1	EN	59	33		
National Designated States,Original	AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
AU 199944226	A	EN			Based on OPI patent	WO 2000038574
EP 1146816	A1	EN			PCT Application	WO 1999US12651
					Based on OPI patent	WO 2000038574
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6564078	B1	EN			Related to Provisional	US 1998113651

					Related to Provisional	US 1999120663
					Related to Provisional	US 1999123268
JP 2003524452	W	JA	56		PCT Application	WO 1999US12651
					Based on OPI patent	WO 2000038574
US 20030195405	A1	EN			Related to Provisional	US 1998113651
					Related to Provisional	US 1999120663
					Related to Provisional	US 1999123268
					Division of application	US 1999325998
					Division of patent	US 6564078
EP 1146816	B1	EN			PCT Application	WO 1999US12651
					Based on OPI patent	WO 2000038574
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 69927717	E	DE			Application	EP 1999927283
					PCT Application	WO 1999US12651
					Based on OPI patent	EP 1146816
					Based on OPI patent	WO 2000038574
US 7079883	B2	EN			Related to Provisional	US 1998113651
					Related to Provisional	US 1999120663
					Related to Provisional	US 1999123268
					Division of application	US 1999325998
					Division of patent	US 6564078
DE 69927717	T2	DE			Application	EP 1999927283
					PCT Application	WO 1999US12651
					Based on OPI patent	EP 1146816
					Based on OPI patent	WO 2000038574

Alerting Abstract WO A1

NOVELTY - The system includes a **cannula** having an **expandable** tip (113) at the distal end. The tip has multiple inward tapering petals (114) arranged radially, each petal disposed with a nerve surveillance electrode (116). The electrodes are adapted for electromyography or to cauterize blood vessels.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

A. an intervertebral space accessing method; **and**
B. an intervertebral space accessing system.

USE - For spinal surgery.

ADVANTAGE - The system enables exact locating of para-spiral nerves so that damage caused to the para-spiral nerves is prevented. As the electrodes cauterize blood vessels, clear vision inside an intervertebral disk is assured after surgical entry.

DESCRIPTION OF DRAWINGS - The figure shows a perspective distal view of the nerve surveillance system.

113 Expandable tip

114 Petals
116 Nerve surveillance electrode

Title Terms /Index Terms/Additional Words: NERVE; SURVEILLANCE; SYSTEM; **SPINE**; SURGICAL; CANNULA; EXPAND; DISTAL; END; MULTIPLE; INWARD; TAPER; PETAL; ELECTRODE; DISPOSABLE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-005/0408			Main		"Version 7"
A61B-017/56; A61B-018/04; A61B-005/0478; A61B-005/0492			Secondary		"Version 7"
A61B-0017/34	A	I	L		20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/56	A	I		R	20060101
A61B-0018/04	A	I		R	20060101
A61B-0018/14	A	I	L		20060101
A61B-0018/14	A	I		R	20060101
A61B-0005/04	A	I	F	B	20060101
A61B-0005/04	A	I		R	20060101
A61B-0005/0408	A	I		R	20060101
A61B-0005/0478	A	I		R	20060101
A61B-0005/0488	A	I	L		20060101
A61B-0005/0488	A	I		R	20060101
A61B-0005/0492	A	I	F		20060101
A61B-0005/0492	A	I		R	20060101
A61N-0001/05	A	I	L		20060101
A61N-0001/05	A	I		R	20060101
A61B-0017/34	A	I	L	B	20060101
A61B-0018/14	A	I	L	B	20060101
A61B-0005/0488	A	I	L	B	20060101
A61B-0005/0492	A	I	F	B	20060101
A61N-0001/05	A	I	L	B	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/56	C	I		R	20060101
A61B-0018/04	C	I		R	20060101
A61B-0018/14	C	I		R	20060101
A61B-0005/04	C	I		R	20060101
A61B-0005/0408	C	I		R	20060101
A61B-0005/0476	C	I		R	20060101
A61B-0005/0488	C	I	F		20060101
A61B-0005/0488	C	I		R	20060101
A61N-0001/05	C	I		R	20060101

A61B-0005/0488	C	I	F	B	20060101

US Classification, Issued: 600373000, 600373000, 600546000, 600554000, 607116000, 607117000, 600373000, 128898000

File Segment: EngPI; EPI;
DWPI Class: S05; P31; P33; P34; P32
Manual Codes (EPI/S-X): S05-B03; S05-B04; S05-B05

?

18/5/14 (Item 14 from file: 350) **Links**
Derwent WPIX

0013013037 *Drawing available*
WPI Acc no: 2003-091329/200308
Related WPI Acc No: 1998-387722; 1999-302876; 1999-302877; 2001-535793; 2001-541208; 2001-647829; 2002-097727; 2002-106252; 2002-155104; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRAM Acc no: C2003-023003
XRPX Acc No: N2003-072264

Implant for placing between spinous process, has body with shaft, spacer having shaft with bore mounted on shaft, outer shell with cavity between spacer shaft and outer shell and compressible medium inserted into cavity

Patent Assignee: FLYNN J (FLYN-I); HSU K Y (HSUK-I); WINSLOW C J (WINS-I); ZUCHERMAN J F (ZUCH-I)
Inventor: FLYNN J; HSU K Y; WINSLOW C J; ZUCHERMAN J F

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20020143331	A1	20021003	US 1998175645	A	19981020	200308	B
			US 1998179570	A	19981027		
			US 1999473173	A	19991228		
			US 1999474037	A	19991228		
			US 2001799215	A	20010305		
			US 2001323467	P	20010918		
			US 200137236	A	20011109		

Priority Applications (no., kind, date): US 1998175645 A 19981020; US 1998179570 A 19981027; US 1999473173 A 19991228; US 1999474037 A 19991228; US 2001799215 A 20010305; US 2001323467 P 20010918; US 200137236 A 20011109

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20020143331	A1	EN	18	9	Continuation of application	US 1998175645
					Continuation of application	US 1998179570
					C-I-P of application	US 1999473173
					C-I-P of application	US 1999474037
					C-I-P of application	US 2001799215
					Related to Provisional	US 2001323467
					Continuation of patent	US 6048342
					Continuation of patent	US 6068630
					C-I-P of patent	US 6190387

					C-I-P of patent	US 6235030

Alerting Abstract US A1

NOVELTY - Implant (100) adapted for placing between **spinous process**, comprises a body with an extending shaft, a spacer rotatably mounted on shaft, spacer including a spacer shaft having an extending bore, an outer shell with a cavity between spacer shaft and outer shell and a compressible medium inserted into the cavity between the spacer shaft and outer shell.

USE - As an **implant** for **spinous process** of **adjacent vertebrae** in order to alleviate the back pain caused by for example, spinal stenosis and other ailments.

ADVANTAGE - The implant is **minimally invasive** for alleviating discomfort associated with the spinal column.

DESCRIPTION OF DRAWINGS - The figure shows assembly of the implant.

100 Implant

Title Terms /Index Terms/Additional Words: IMPLANT; PLACE; SPINE ; PROCESS; BODY; SHAFT; SPACE; BORE; MOUNT; OUTER; SHELL; CAVITY; COMPRESS; MEDIUM; INSERT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61K-0031/37	A	I		R	20060101
A61B-0017/60	C	N		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61K-0031/366	C	I		R	20060101

US Classification, Issued: 606061000

File Segment: CPI; EngPI

DWPI Class: A96; D22; P31

Manual Codes (CPI/A-N): A12-V02; D09-C01D

18/5/16 (Item 16 from file: 350) **Links**
Derwent WPIX

0011216036 *Drawing available*
WPI Acc no: 2002-155104/200220
Related WPI Acc No: 1998-387722; 1999-302876; 1999-302877; 2001-535793; 2001-541208; 2001-647829; 2002-097727; 2002-106252; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-091329; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRPX Acc No: N2002-117882

Spine distraction implant for alleviating pain associated with spinal stenosis and facet arthropathy by expanding the volume in the spine canal and/or neural foramen has elliptical spacer positionable between spinous processes

Patent Assignee: ST FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N)
Inventor: HSU K Y; KLYCE H A; WINSLOW C J; ZUCHERMAN J F

Patent Family (2 patents, 93 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2002007623	A1	20020131	WO 2001US22968	A	20010720	200220	B
AU 200177942	A	20020205	AU 200177942	A	20010720	200236	E

Priority Applications (no., kind, date): US 2000220137 P 20000721; US 2001799215 A 20010305

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2002007623	A1	EN	155	132		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200177942	A	EN			Based on OPI patent	WO 2002007623

Alerting Abstract WO A1

NOVELTY - The spine distraction implant (1200) implant provides a spinal extension inhibitor while allowing freedom of spinal flexion. The implant includes an elliptically-shaped spacer for positioning between and spacing apart the spinous processes.

DESCRIPTION - The implant has a first wing (1202) with a central body extending from it and an elliptical sleeve (1204) positioned over the central body. The sleeve can rotate about the longitudinal axis of the central body so as to be positionable relative to it in order to aid in positioning the implant between **spinous processes**. The sleeve has at least one flat side between its blunt and pointed ends, to be positioned adjacent to a **spinous process** and conform to the flat portion of the **spinous process**. An elliptical tissue expander guides the placement of the sleeve between

spinous processes. A second wing is positionable adjacent to the tissue expander, and has a concave recess for receiving the expander.
USE - For alleviating pain associated with spinal stenosis, e.g. central canal stenosis or forminal (lateral) stenosis, and facet arthropathy by expanding the volume in the spine canal and/or neural foramen.
ADVANTAGE - **Minimally invasive** and can be used on an outpatient basis.
DESCRIPTION OF DRAWINGS - The drawing shows a plan view of the implant.
1200 spine distraction implant
1202 first wing
1204 sleeve
1206 guide

Title Terms /Index Terms/Additional Words: SPINE; DISTRACTION; IMPLANT; ALLEVIATE; PAIN; ASSOCIATE; STENOSIS; FACET; EXPAND; VOLUME; CANAL ; NEURAL; ELLIPSE; SPACE; POSITION; PROCESS

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101

File Segment: EngPI; ;
DWPI Class: P31

18/5/17 (Item 17 from file: 350) **Links**
Derwent WPIX

0011168679 *Drawing available*
WPI Acc no: 2002-106252/200214
Related WPI Acc No: 1998-387722; 1999-302876; 1999-302877; 2001-535793; 2001-541208; 2001-647829; 2002-097727; 2002-155104; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-091329; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRPX Acc No: N2002-079045
Implant, for rigidly positioning spinous processes, involves additional force on the vertebral bodies that encourages fusion which alleviates pain
Patent Assignee: ST FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N)
Inventor: HSU K Y; KLYCE H A; WINSLOW C J; ZUCHERMAN J F

Patent Family (3 patents, 84 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type

WO 2001091657	A1	20011206	WO 2001US17235	A	20010524	200214	B
AU 200163480	A	20011211	AU 200163480	A	20010524	200225	E
US 6451019	B1	20020917	US 1998175645	A	19981020	200264	E
			US 1998179570	A	19981027		
			US 1999473173	A	19991228		
			US 1999474037	A	19991228		
			US 2000579039	A	20000526		

Priority Applications (no., kind, date): US 1998175645 A 19981020; US 1998179570 A 19981027; US 1999473173 A 19991228; US 1999474037 A 19991228; US 2000579039 A 20000526

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2001091657	A1	EN	194	151		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200163480	A	EN			Based on OPI patent	WO 2001091657
US 6451019	B1	EN			Continuation of application	US 1998175645
					Continuation of application	US 1998179570
					C-I-P of application	US 1999473173
					C-I-P of application	US 1999474037
					Continuation of patent	US 6048342
					Continuation of patent	US 6068630
					C-I-P of patent	US 6190387
					C-I-P of patent	US 6235030

Alerting Abstract WO A1

NOVELTY - An implant comprises a first hook (2004) for engaging a first spinous process, a second hook (2006) for engaging a second spinous process, a body between them and hub (2002) for engaging all three. At least either the hub or the body can allow the body to move relative to at least one of the first and second hooks.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

A. an implant where the first and second means are hooks;
B. an improved implant with a spacer positioned between adjacent **spinous processes**;

C. and a method of rigidly positioning a first **spinous process** relative to a second **spinous process**.

USE - For rigidly positioning **spinous processes**.
ADVANTAGE - The additional force on the vertebral bodies encourages fusion which alleviates pain. Rigidity between the **spinous processes** ensures rigid holding of the vertebral bodies which promotes bone growth and fusion. The fixation device is simple to use, cost effective, **minimally invasive** and leaves bone, ligament and other tissue intact.
DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of the implant.
2000 spine fixation device
2002 hub
2004 first hook
2006 second hook
2008 first hook
2010, 2014 shafts

Title Terms /Index Terms/Additional Words: IMPLANT; RIGID; POSITION; SPINE; PROCESS; ADD; FORCE; VERTEBRA; BODY; ENCOURAGE; FUSE; PAIN

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61K-0031/37	A	I		R	20060101
A61B-0017/60	C	N		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61K-0031/366	C	I		R	20060101

US Classification, Issued: 606061000

File Segment: EngPI; ;
DWPI Class: P31

18/5/18 (Item 18 from file: 350) **Links**
Derwent WPIX

0010919545 *Drawing available*
WPI Acc no: 2001-541208/200160
Related WPI Acc No: 1998-387722; 1999-302876; 1999-302877; 2001-535793; 2001-647829; 2002-097727;

2002-106252; 2002-155104; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-091329; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRPX Acc No: N2001-402278

Pain relieving implant for spinal column, has sleeve positioned over the central body of a wing to aid in positioning the implant between spinous processes

Patent Assignee: ST FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N)
Inventor: HSU K; HSU K Y; KLYCE H; KLYCE H A; WINSLOW C; WINSLOW C J; ZUCHERMAN J; ZUCHERMAN J F

Patent Family (2 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20010021850	A1	20010913	US 1997778093	A	19970102	200160	B
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1998179570	A	19981027		
			US 1999473173	A	19991228		
			US 2000706991	A	20001106		
			US 2001842755	A	20010426		
US 6699246	B2	20040302	US 1997778093	A	19970102	200417	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1998179570	A	19981027		
			US 1999473173	A	19991228		
			US 2000706991	A	20001106		
			US 2001842755	A	20010426		

Priority Applications (no., kind, date): US 1997778093 A 19970102; US 1997958281 A 19971027; US 1998175645 A 19981020; US 1998179570 A 19981027; US 1999473173 A 19991228; US 2000706991 A 20001106; US 2001842755 A 20010426

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20010021850	A1	EN	93	129	Continuation of application	US 1997778093
					C-I-P of application	US 1997958281
					C-I-P of application	US 1998175645
					Continuation of application	US 1998179570
					Continuation of application	US 1999473173
					Continuation of application	US 2000706991
					Continuation of patent	US 5836948
					C-I-P of patent	US 5860977
					Continuation of patent	US 6048342
					C-I-P of patent	US 6068630

					Continuation of patent	US 6235030
US 6699246	B2	EN			C-I-P of application	US 1997778093
					C-I-P of application	US 1997958281
					C-I-P of application	US 1998175645
					Continuation of application	US 1998179570
					Continuation of application	US 1999473173
					Continuation of application	US 2000706991
					C-I-P of patent	US 5836948
					C-I-P of patent	US 5860977
					Continuation of patent	US 6048342
					C-I-P of patent	US 6068630
					Continuation of patent	US 6235030
					Continuation of patent	US 6332883

Alerting Abstract US A1

NOVELTY - A sleeve is positioned over the central body of a wing, the sleeve rotating about the longitudinal axis of the central body to be positioned relative to the body to aid in positioning the implant between **spinous processes**.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a pain-relieving implant system.
USE - For spinal column. Applicable especially for elderly persons.
ADVANTAGE - Has the ability to flatten the natural curvature of the spine and open the neural foramen and the spacing between the adjacent vertebra to relieve problems associated with the lateral and central stenosis. **Minimally invasive** and can be used on an outpatient basis.
DESCRIPTION OF DRAWINGS - The figure shows the implant in an extended configuration.

Title Terms /Index Terms/Additional Words: PAIN; RELIEVE; IMPLANT; SPINE; COLUMN; SLEEVE; POSITION; CENTRAL; BODY; WING; AID; PROCESS

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61K-0031/37	A	I		R	20060101
A61B-0017/60	C	N		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61K-0031/366	C	I		R	20060101

US Classification, Issued: 606061000, 623017110, 606061000

File Segment: EngPI; ;
DWPI Class: P31

18/5/19 (Item 19 from file: 350) **Links**
Derwent WPIX

0010914435 *Drawing available*
WPI Acc no: 2001-535793/200159
Related WPI Acc No: 1998-387722; 1999-302876; 1999-302877; 2001-541208; 2001-647829; 2002-097727; 2002-106252; 2002-155104; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-091329; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRPX Acc No: N2001-397891
Insertion instrument for introducing spinal implant into patient's spine, has elongate shaft with handle and insertion tip at proximal and distal ends, and locking and alignment pins set in tip
Patent Assignee: HSU K Y (HSUK-I); KLYCE H A (KLYC-I); ST FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N); WINSLOW C J (WINS-I); ZUCHERMAN J F (ZUCH-I)
Inventor: HSU K Y; KLYCE H A; WINSLOW C J; ZUCHERMAN J F

Patent Family (4 patents, 94 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20010020170	A1	20010906	US 1997778093	A	19970102	200159	B
			US 1997958281	A	19971027		
			US 1998124203	A	19980728		
			US 1998139333	A	19980825		
			US 1998175645	A	19981020		
			US 1998179570	A	19981027		
			US 1998200266	A	19981125		
			US 1999361510	A	19990727		
			US 1999473173	A	19991228		
			US 1999474037	A	19991228		
			US 2000220022	P	20000721		
			US 2001799470	A	20010305		
WO 2002007624	A1	20020131	WO 2001US23006	A	20010720	200215	E
AU 200182926	A	20020205	AU 200182926	A	20010720	200236	E
US 6902566	B2	20050607	US 1997778093	A	19970102	200538	E
			US 1997958281	A	19971027		
			US 1998124203	A	19980728		
			US 1998139333	A	19980825		
			US 1998175645	A	19981020		
			US 1998179570	A	19981027		
			US 1998200266	A	19981125		

			US 1999361510	A	19990727		
			US 1999473173	A	19991228		
			US 1999474037	A	19991228		
			US 2000220022	P	20000721		
			US 2001799470	A	20010305		

Priority Applications (no., kind, date): US 1997778093 A 19970102; US 1997958281 A 19971027; US 1998124203 A 19980728; US 1998139333 A 19980825; US 1998175645 A 19981020; US 1998179570 A 19981027; US 1998200266 A 19981125; US 1999361510 A 19990727; US 1999473173 A 19991228; US 1999474037 A 19991228; US 2000220022 P 20000721; US 2001799470 A 20010305

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
US 20010020170	A1	EN	24	13	Continuation of application	US 1997778093
					Continuation of application	US 1997958281
					Continuation of application	US 1998124203
					Continuation of application	US 1998139333
					Division of application	US 1998175645
					Continuation of application	US 1998179570
					C-I-P of application	US 1998200266
					C-I-P of application	US 1999361510
					C-I-P of application	US 1999473173
					C-I-P of application	US 1999474037
					Related to Provisional	US 2000220022
					Continuation of patent	US 5836948
					Continuation of patent	US 5860977
					Continuation of patent	US 5876404
					Continuation of patent	US 6048342
					Division of patent	US 6068630
					Continuation of patent	US 6090112
					C-I-P of patent	US 6183471
					C-I-P of patent	US 6190387
					C-I-P of patent	US 6235030
WO 2002007624	A1	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					

AU 200182926	A	EN			Based on OPI patent	WO 2002007624
US 6902566	B2	EN			Continuation of application	US 1997778093
					Continuation of application	US 1997958281
					Continuation of application	US 1998124203
					Continuation of application	US 1998139333
					Division of application	US 1998175645
					Continuation of application	US 1998179570
					C-I-P of application	US 1998200266
					C-I-P of application	US 1999361510
					C-I-P of application	US 1999473173
					C-I-P of application	US 1999474037
					Related to Provisional	US 2000220022
					Continuation of patent	US 5836948
					Continuation of patent	US 5860977
					Continuation of patent	US 5876404
					Continuation of patent	US 6048342
					Division of patent	US 6068630
					Continuation of patent	US 6090112
					C-I-P of patent	US 6183471
					C-I-P of patent	US 6190387
					C-I-P of patent	US 6235030
					C-I-P of patent	US 6379355

Alerting Abstract US A1
NOVELTY - An elongate shaft (20) has a handle (10) at the proximal end, and an insertion tip (30) at the distal end. An insertion rod, entered into the shaft, has a distal end carrying a locking pin and an alignment or spacer engagement pins. Both pins are positioned within the insertion tip. The locking pin secures a spinal implant body at the insertion tip.
DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

D. an insertion device adapted for installing a wing on a main body assembly in the spine;
E. a wing for inserting on to a main body assembly;
F. a system with a device for insertion of a main body assembly in the spine of a patient;
G. a system with a device for inserting a wing in the spine of a patient;
H. a method for inserting a main body assembly into the spine of a patient;
I. a method for inserting a spinal implant into a patient;
J. an improved insertion tool for implanting an implant relative to the spine;
K. a method of inserting a two piece implant into a patient;
L. and a system for determining the space between spinous processes.

USE - For introducing spinal implant into patient's spine, and for relieving pain associated with spine.
ADVANTAGE - Reduces pain and symptoms of spinal stenosis as well as other symptoms or injuries associated with spine, upon insertion of spinal **implant between adjacent vertebrae** or **spinous processes** within patient's

spine. Insertion instrument parts can be simply separated from each other for cleaning or sterilization between use conditions. Eases disengagement of instrument from implant, upon inserting and leaving implant within patient's spine.
DESCRIPTION OF DRAWINGS - The figure shows the side view of an implant insertion instrument.
10 Handle
20 Elongate shaft
30 Insertion tip

Title Terms /Index Terms/Additional Words: INSERT; INSTRUMENT; INTRODUCING; SPINE; IMPLANT; PATIENT; ELONGATE; SHAFT; HANDLE; TIP; PROXIMITY; DISTAL; END; LOCK; ALIGN; PIN; SET

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-0017/02	A	N		R	20060101
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61K-0031/37	A	I		R	20060101
A61B-0017/02	C	N		R	20060101
A61B-0017/60	C	N		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61K-0031/366	C	I		R	20060101

US Classification, Issued: 606099000, 606060000, 606061000

File Segment: EngPI; ;
DWPI Class: P31

18/5/20 (Item 20 from file: 350) **Links**
Derwent WPIX

0009369103 *Drawing available*
WPI Acc no: 1999-302877/199925
Related WPI Acc No: 1998-387722; 1999-302876; 2001-535793; 2001-541208; 2001-647829; 2002-097727; 2002-106252; 2002-155104; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-091329; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRPX Acc No: N1999-226906
Spine distraction implant
Patent Assignee: SAINT FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N); ST FRANCIS MEDICAL

TECHNOLOGIES LLC (SFRA-N)
Inventor: HSU K Y; KLYCE H A; WINSLOW C J; ZUCHERMAN J F

Patent Family (12 patents, 82 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1999021501	A1	19990506	WO 1998US22709	A	19981027	199925	B
AU 199913659	A	19990517	AU 199913659	A	19981027	199939	E
US 6048342	A	20000411	US 1997778093	A	19970102	200025	E
			US 1997958281	A	19971027		
			US 1998179570	A	19981020		
EP 1027004	A1	20000816	EP 1998957384	A	19981027	200040	E
			WO 1998US22709	A	19981027		
US 6235030	B1	20010522	US 1997778093	A	19970102	200130	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1998179570	A	19981020		
			US 1999473173	A	19991228		
AU 737486	B	20010823	AU 199913659	A	19981027	200154	E
AU 200154435	A	20010906	AU 199913659	A	19981027	200162	NCE
			AU 200154435	A	20010716		
KR 2001031506	A	20010416	KR 2000704547	A	20000427	200163	E
CN 1309549	A	20010822	CN 1998811709	A	19981027	200175	E
US 6332883	B1	20011225	US 1997778093	A	19970102	200206	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1998179570	A	19981027		
			US 1999473173	A	19991228		
			US 2000706991	A	20001106		
AU 760981	B	20030529	US 1997958281	A	19971027	200346	NCE
			AU 200154435	A	20010716		
JP 2003523214	W	20030805	WO 1998US22709	A	19981027	200353	E
			JP 2000517666	A	19981027		

Priority Applications (no., kind, date): US 1997778093 A 19970102; US 1997958281 A 19971027; US 1998175645 A 19981020; US 1998179570 A 19981020; WO 1998US22285 A 19981021; US 1998179570 A 19981027; US 1999473173 A 19991228; US 2000706991 A 20001106; AU 200154435 A 20010716

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 1999021501	A1	EN	146	129	
National	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI				

Designated States,Original	GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 199913659	A	EN			Based on OPI patent	WO 1999021501
US 6048342	A	EN			C-I-P of application	US 1997778093
					C-I-P of application	US 1997958281
					C-I-P of patent	US 5836948
					C-I-P of patent	US 5860977
EP 1027004	A1	EN			PCT Application	WO 1998US22709
					Based on OPI patent	WO 1999021501
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6235030	B1	EN			C-I-P of application	US 1997778093
					C-I-P of application	US 1997958281
					C-I-P of application	US 1998175645
					Continuation of application	US 1998179570
					C-I-P of patent	US 5836948
					C-I-P of patent	US 5860977
					Continuation of patent	US 6048342
					C-I-P of patent	US 6068630
AU 737486	B	EN			Previously issued patent	AU 9913659
					Based on OPI patent	WO 1999021501
AU 200154435	A	EN			Division of application	AU 199913659
					Division of patent	AU 737486
US 6332883	B1	EN			C-I-P of application	US 1997778093
					C-I-P of application	US 1997958281
					C-I-P of application	US 1998175645
					Continuation of application	US 1998179570
					Continuation of application	US 1999473173
					C-I-P of patent	US 5836948
					C-I-P of patent	US 5860977
					Continuation of patent	US 6048342
					C-I-P of patent	US 6068630
					Continuation of patent	US 6235030
AU 760981	B	EN			Division of application	US 1997958281
					Previously issued patent	AU 200154435
					Division of patent	AU 737486
JP 2003523214	W	JA	137		PCT Application	WO 1998US22709
					Based on OPI patent	WO 1999021501

Alerting Abstract WO A1

NOVELTY - The implant (1200) comprises a wing with a central body that extends from the wing. A sleeve is positioned over the body with the sleeve being able to rotate about the longitudinal axis of the body to be positional relative to the central body in order to aid in positioning the implant between **spinous processes**. The sleeve has an elliptical cross-section. The implant can have a second wing with a sleeve guide. The implant also incorporates a spinal extension stop (1204).

USE - For use where a patient has a case of spinal stenosis.

ADVANTAGE - The device is **minimally invasive**, and so can be used on older people without causing trauma to their spines.

DESCRIPTION OF DRAWINGS - Shows planar view of the assembly.

1200 spinal implant,

1204 extension stop.

Title Terms /Index Terms/Additional Words: SPINE; DISTRACTION; IMPLANT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/44			Main		"Version 7"
A61B-017/58			Secondary		"Version 7"
A61B-0017/56	A	I	F	R	20060101
A61B-0017/58	A	I	F	R	20060101
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61F-0002/44	A	I	L	R	20060101
A61K-0031/37	A	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61B-0017/58	C	I	F	R	20060101
A61B-0017/60	C	N		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61F-0002/44	C	I	L	R	20060101
A61K-0031/366	C	I		R	20060101

US Classification, Issued: 623017000, 606061000, 623017110, 606061000, 623017110, 606061000

File Segment: EngPI; ;
DWPI Class: P31; P32

18/5/21 (Item 21 from file: 350) **Links**
Derwent WPIX

0009369102 *Drawing available*
WPI Acc no: 1999-302876/199925
Related WPI Acc No: 1998-387722; 1999-302877; 2001-535793; 2001-541208; 2001-647829; 2002-097727; 2002-106252; 2002-155104; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-091329; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRPX Acc No: N1999-226905
Spine distraction implant
Patent Assignee: SAINT FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N); ST FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N)
Inventor: HSU K; HSU K Y; KLYCE H; KLYCE H A; WINSLOW C; WINSLOW C J; ZUCHERMAN J; ZUCHERMAN J F

Patent Family (19 patents, 82 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1999021500	A1	19990506	WO 1998US22285	A	19981021	199925	B
AU 199913624	A	19990517	AU 199913624	A	19981021	199939	E
US 6068630	A	20000530	US 1997778093	A	19970102	200033	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
EP 1030615	A1	20000830	EP 1998957346	A	19981021	200042	E
			WO 1998US22285	A	19981021		
US 6190387	B1	20010220	US 1997778093	A	19970102	200112	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474037	A	19991228		
CN 1280473	A	20010117	CN 1998811736	A	19981021	200128	E
KR 2001031505	A	20010416	KR 2000704546	A	20000427	200163	E
JP 2001520912	W	20011106	WO 1998US22285	A	19981021	200203	E
			JP 2000517665	A	19981021		
US 6332882	B1	20011225	US 1997778093	A	19970102	200206	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474038	A	19991228		
AU 750662	B	20020725	AU 199913624	A	19981021	200260	E
US 20020183746	A1	20021205	US 1997778093	A	19970102	200301	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474037	A	19991228		
			US 1999474038	A	19991228		

			US 2001842756	A	20010426		
US 6699247	B2	20040302	US 1997778093	A	19970102	200417	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474037	A	19991228		
			US 1999474038	A	19991228		
			US 2001842756	A	20010426		
US 20040167520	A1	20040826	US 1997778093	A	19970102	200457	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474037	A	19991228		
			US 1999474038	A	19991228		
			US 2001842756	A	20010426		
			US 2004790561	A	20040301		
US 20040220568	A1	20041104	US 1997778093	A	19970102	200473	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474037	A	19991228		
			US 1999474038	A	19991228		
			US 2001842756	A	20010426		
			US 2004790651	A	20040301		
US 20050101955	A1	20050512	US 1997778093	A	19970102	200532	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474038	A	19991228		
			US 2001842756	A	20010426		
			US 2003732589	A	20031210		
US 20050143738	A1	20050630	US 1997778093	A	19970102	200543	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474037	A	19991228		
			US 1999474038	A	19991228		
			US 2001842756	A	20010426		
			US 2004790561	A	20040301		
			US 200567982	A	20050228		
US 20050228383	A1	20051013	US 1997778093	A	19970102	200567	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
			US 1999474037	A	19991228		
			US 1999474038	A	19991228		
			US 2001842756	A	20010426		
			US 2004790561	A	20040301		

			US 200567835	A	20050228		
US 20050228384	A1	20051013	US 1997778093	A	19970102	200567	E
			US 1997958281	A	19971027		
			US 1998175645	A	19981020		
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Priority Applications (no., kind, date): US 1997778093 A 19970102; US 1997958281 A 19971027; US 1998175645 A 19981020; US 1999474037 A 19991228; US 1999474038 A 19991228; US 2001842756 A 20010426; US 2003732589 A 20031210; US 2004790561 A 20040301; US 2004790651 A 20040301; US 200567835 A 20050228; US 200567982 A 20050228; US 200568554 A 20050228

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WO 1999021500	A1	EN	137	118		
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					C-I-P of patent	US 5860977
EP 1030615	A1	EN			PCT Application	WO 1998US22285
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JP 2001520912	W	JA	133		PCT Application	WO 1998US22285
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AU 750662	B	EN			Previously issued patent	AU 9913624
					Based on OPI patent	WO 1999021500
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Alerting Abstract WO A1

NOVELTY - The implant (1000) has a central body (1002) with a guide (1010) extending at one end and a first wing (1004) secured by a bolt (1006) at the other. A cylindrical sleeve (1016), oval in cross section fits over the body, partially spaced from it to allow deflection of the sleeve towards the body. The implant also has a second wing (1032).

USE - For spinal stenosis treatment.

ADVANTAGE - The implant is **minimally invasive** and alleviates discomfort associated with the spinal column in spinal stenosis by expanding the volume in the spine canal, and/or neural foramen.

DESCRIPTION OF DRAWINGS - The drawing shows a schematic of the implant.

1000 Implant
1002 Central body
1004 First wing
1006 Bolt
1010 Guide
1016 Cylindrical sleeve
1032 Second wing

Title Terms /Index Terms/Additional Words: SPINE; DISTRACTION; IMPLANT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/44			Main		"Version 7"
A61B-017/56			Secondary		"Version 7"

A61B-0017/56	A	I	F	R	20060101
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61F-0002/44	A	I	L	R	20060101
A61K-0031/37	A	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61B-0017/60	C	N		R	20060101
A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61F-0002/44	C	I	L	R	20060101
A61K-0031/366	C	I		R	20060101

US Classification, Issued: 606061000, 606061000, 606061000, 606061000, 606061000, 606061000, 606061000, 606061000, 623017000, 606061000, 623017160 , 606061000, 623017110, 606061000, 623017110

File Segment: EngPI; ;
DWPI Class: P31; P32

18/5/22 (Item 22 from file: 350) **Links**
Derwent WPIX

0008841256 *Drawing available*
WPI Acc no: 1998-387722/199833
Related WPI Acc No: 1999-302876; 1999-302877; 2001-535793; 2001-541208; 2001-647829; 2002-097727; 2002-106252; 2002-155104; 2002-574174; 2002-607896; 2002-618916; 2002-691028; 2003-057304; 2003-091329; 2003-480437; 2004-570770; 2004-593104; 2004-689905; 2006-813188
XRPX Acc No: N1998-302364
Spinal distraction implant for relieving pain associated with spinal stenosis - comprises spinous process containment member with open end to allow flexion of spinal column and saddle to limit extension of spinal column
Patent Assignee: HSU K Y (HSUK-I); SAINT FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N); ST FRANCIS MEDICAL TECHNOLOGIES LLC (SFRA-N); ST FRANCIS TECHNOLOGIES INC (SFRA-N); ZUCHERMAN J F (ZUCH-I)
Inventor: FALLIN T W; HSU K Y; KLYCE H A; ZUCHERMAN J F; ZUCKERMAN J F

Patent Family (37 patents, 79 countries)

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US 6152926	A	20001128	US 1997778093	A	19970102	200063	E
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			US 1998139333	A	19980825		
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IL 130677	A	20040831	IL 130677	A	19971223	200467	E
CN 1184931	C	20050119	CN 1997181755	A	19971223	200620	E
KR 2005065682	A	20050629	WO 1997US23962	A	19971223	200644	E
			KR 2005709843	A	20050531		
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Priority Applications (no., kind, date): US 1997778093 A 19970102; US 1997958281 A 19971027; US 199818479 A 19980205; US 1998124203 A 19980728; US 1998139333 A 19980825; US 1998200266 A 19981125; US 1999306140 A 19990506; US 1999360955 A 19990727; US 1999361510 A 19990727; US 1999361512 A 19990727; US 1999361513 A 19990727; US 1999473184 A 19991228; US 2000507755 A 20000218; US 2000684748 A 20001006; US 2000686150 A 20001207; US 2001754534 A 20010104; US 2001684017 A 20010108; US 2001805687 A 20010308; US 2001808827 A 20010315; US 2001809305 A 20010315; AU 200157755 A 20010802

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US 5860977	A	EN			C-I-P of application	US 1997778093
US 5876404	A	EN			C-I-P of application	US 1997778093
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					Division of patent	AU 741210
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					Division of application	US 199818479

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					Continuation of application	US 1999361513
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					Division of patent	US 6074390
					Continuation of patent	US 6149652
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KR 2005065682	A	KO			PCT Application	WO 1997US23962
					Based on OPI patent	WO 1998029047
KR 526168	B	KO			PCT Application	WO 1997US23962
					Previously issued patent	KR 2000062422
					Based on OPI patent	WO 1998029047

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The implant (900) comprises a spinous process containment member that is adapted to be positionable between a first spinous process and a second spinous process. The containment member has an open end that does not limit flexion of the spinal column.

The containment member also includes a saddle, which limits extension of the spinal column. The open end does not prevent the spreading apart of the first spinous process from the second spinous process. The saddle does stop the motion of the first spinous process and the second spinous process towards each other.

USE - For alleviating pain associated with spinal stenosis, and facet arthropathy by expanding the volume in the spine canal or the foramen.

ADVANTAGE - Provides a spinal extension stop while allowing freedom of spinal flexion. Provides **minimally invasive** implant which can be tolerated by the elderly and fitted on an outpatient basis.

Title Terms /Index Terms/Additional Words: SPINE; DISTRACTION; IMPLANT; RELIEVE; PAIN; ASSOCIATE; STENOSIS; COMPRISE; PROCESS; CONTAIN; MEMBER; OPEN; END; ALLOW; FLEXURE; COLUMN; SADDLE; LIMIT; EXTEND

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56; A61B-017/70			Main		"Version 7"
A61B-017/68; A61F-002/44			Secondary		"Version 7"
A61B-0017/56	A	I	F	R	20060101
A61B-0017/66	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/88	A	I		R	20060101
A61F-0002/44	A	I	L	R	20060101
A61F-0002/44	A	I		R	20060101
A61K-0031/37	A	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61B-0017/60	C	N		R	20060101

A61B-0017/70	C	I		R	20060101
A61B-0017/88	C	I		R	20060101
A61F-0002/44	C	I	L	R	20060101
A61F-0002/44	C	I		R	20060101
A61K-0031/366	C	I		R	20060101

US Classification, Issued: 606061000, 606105000, 606061000, 623017160, 606061000, 623017110, 623017160, 606061000, 606105000, 623017000, 606061000 , 623017000, 606061000, 623017000, 606061000, 623017000, 606061000, 623017000, 606061000, 623017000, 606061000, 623017110, 606061000, 623017000 , 606061000, 623017110, 606061000, 623017110, 128898000, 606061000, 606078000, 606061000, 623017110, 606061000, 623017110, 606061000, 606061000 , 623017110, 606061000, 623017110, 606061000, 606060000, 623017110, 606061000, 623017110, 606061000, 606190000

File Segment: EngPI; ;
DWPI Class: P31; P32

18/5/23 (Item 23 from file: 350) **Links**
Derwent WPIX

0007908337
WPI Acc no: 1996-433395/199643
Related WPI Acc No: 1990-022365; 1990-037021; 1995-036040; 1995-351181; 1996-039866; 1996-086965; 1996-414238; 1996-425184; 1997-051767; 1997-051788; 1997-051791; 1997-051792; 1999-456235; 2001-272953; 2006-229888
XRAM Acc no: C1996-135944
XRPX Acc No: N1996-365239
Insertion of an implant in a human spine - by penetration of a disc from the side between two vertebra, removing a part of the disc, and inserting the implant
Patent Assignee: MICHELSON G K (MICH-I); SDGI HOLDINGS INC (SDGI-N)
Inventor: MICHELSON G K

Patent Family (16 patents, 69 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1996027321	A2	19960912	WO 1996US2378	A	19960226	199643	B
AU 199650259	A	19960923	AU 199650259	A	19960226	199702	E
WO 1996027321	A3	19961227	WO 1996US2378	A	19960226	199713	E
EP 814718	A1	19980107	EP 1996907089	A	19960226	199806	E
			WO 1996US2378	A	19960226		
DE 29623247	U1	19980219	DE 29623247	U	19960226	199813	E
			WO 1996US2378	A	19960226		
US 5772661	A	19980630	US 1988205935	A	19880613	199833	E

			US 1991698674	A	19910510		
			US 199374781	A	19930610		
			US 1994219626	A	19940328		
			US 1995394836	A	19950227		
JP 11503339	W	19990326	JP 1996526885	A	19960226	199923	E
			WO 1996US2378	A	19960226		
KR 1998702563	A	19980715	WO 1996US2378	A	19960226	199927	E
			KR 1997705969	A	19970827		
AU 707418	B	19990708	AU 199650259	A	19960226	199938	E
US 20020091390	A1	20020711	US 1988205935	A	19880613	200248	E
			US 1991698674	A	19910510		
			US 199374781	A	19930610		
			US 1995394836	A	19950227		
			US 1995480461	A	19950607		
			US 2002100701	A	20020318		
US 20030158553	A1	20030821	US 1988205935	A	19880613	200356	NCE
			US 1991698674	A	19910510		
			US 199374781	A	19930610		
			US 1994219626	A	19940328		
			US 1995480461	A	19950607		
			US 2003371757	A	20030221		
EP 814718	B1	20041103	EP 1996907089	A	19960226	200475	E
			WO 1996US2378	A	19960226		
DE 69633778	E	20041209	DE 69633778	A	19960226	200481	E
			EP 1996907089	A	19960226		
			WO 1996US2378	A	19960226		
EP 1488755	A1	20041222	EP 1996907089	A	19960226	200501	E
			EP 200422577	A	19960226		
ES 2232836	T3	20050601	EP 1996907089	A	19960226	200538	E
JP 2006095326	A	20060413	JP 1996526885	A	19960226	200626	E
			JP 2005334330	A	20051118		

Priority Applications (no., kind, date): US 2003371757 A 20030221; US 2002100701 A 20020318; US 1995480461 A 19950607; US 1994219626 A 19940328; US 199374781 A 19930610; US 1991698674 A 19910510; US 1988205935 A 19880613; US 1995394836 A 19950227

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 1996027321	A2	EN	111	35	
National Designated States,Original	AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN				

Regional Designated States,Original	AT BE CH DE DK EA ES FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG					
AU 199650259	A	EN			Based on OPI patent	WO 1996027321
WO 1996027321	A3	EN				
EP 814718	A1	EN			PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
DE 29623247	U1	DE	72	34	PCT Application	WO 1996US2378
US 5772661	A	EN			Division of application	US 1988205935
					C-I-P of application	US 1991698674
					C-I-P of application	US 199374781
					C-I-P of application	US 1994219626
					Division of patent	US 5015247
JP 11503339	W	JA	65		PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
KR 1998702563	A	KO			PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
AU 707418	B	EN			Previously issued patent	AU 9650259
					Based on OPI patent	WO 1996027321
US 20020091390	A1	EN			Division of application	US 1988205935
					C-I-P of application	US 1991698674
					C-I-P of application	US 199374781
					Division of application	US 1995394836
					Continuation of application	US 1995480461
					Division of patent	US 5015247
					C-I-P of patent	US 5484437
					Division of patent	US 5772661
US 20030158553	A1	EN			Division of application	US 1988205935
					Continuation of application	US 1991698674
					C-I-P of application	US 199374781
					C-I-P of application	US 1994219626
					Continuation of application	US 1995480461
					Division of patent	US 5015247
					C-I-P of patent	US 5484437
EP 814718	B1	EN			PCT Application	WO 1996US2378
					Based on OPI patent	WO 1996027321
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
DE 69633778	E	DE			Application	EP 1996907089

					PCT Application	WO 1996US2378
					Based on OPI patent	EP 814718
					Based on OPI patent	WO 1996027321
EP 1488755	A1	EN			Division of application	EP 1996907089
					Division of patent	EP 814718
Regional Designated States,Original	AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
ES 2232836	T3	ES			Application	EP 1996907089
					Based on OPI patent	EP 814718
JP 2006095326	A	JA	28		Division of application	JP 1996526885

Alerting Abstract WO A2

Intraspinal implant is inserted in a human spine by making a penetration from the side of the disc intermediate two adjacent vertebrae, removing a portion of the spinal disc and inserting, through the penetration, at least one implant between the vertebrae.

USE - In the surgical correction of thoracic and lumber disc disease and spinal deformities, particularly where fusion of adjacent vertebrae is required.

ADVANTAGE - Procedure allows approach to the spine from the side rather than from back or front, which are dangerous due to presence of the spinal cord or requires complex thoracic surgery. The procedure can be performed through a relatively **small incision**.

Title Terms /Index Terms/Additional Words: INSERT; IMPLANT; HUMAN; SPINE; PENETRATE; DISC; SIDE; TWO; VERTEBRA; REMOVE; PART

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/22; A61B-017/56; A61B-017/88; A61F-002/44			Main		"Version 7"
A61F-002/46			Secondary		"Version 7"
A61B-0017/00	A	N		R	20060101
A61B-0017/02	A	N		R	20060101
A61B-0017/02	A	I		R	20060101
A61B-0017/064	A	I		R	20060101
A61B-0017/16	A	I		R	20060101
A61B-0017/17	A	I		R	20060101
A61B-0017/32	A	I		R	20060101
A61B-0017/56	A	I	L	B	20060101
A61B-0017/58	A	I	F	B	20060101
A61B-0017/70	A	N		R	20060101
A61B-0017/80	A	N		R	20060101
A61B-0017/86	A	N		R	20060101

A61B-0017/88	A	I		R	20060101
A61B-0017/92	A	N		R	20060101
A61B-0019/00	A	N		R	20060101
A61F-0002/00	A	N		R	20060101
A61F-0002/02	A	N		R	20060101
A61F-0002/28	A	N		R	20060101
A61F-0002/30	A	N		R	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/02	C	N		R	20060101
A61B-0017/02	C	I		R	20060101
A61B-0017/064	C	I		R	20060101
A61B-0017/16	C	I		R	20060101
A61B-0017/32	C	I		R	20060101
A61B-0017/68	C	N		R	20060101
A61B-0017/70	C	N		R	20060101
A61B-0017/88	C	I		R	20060101
A61B-0019/00	C	N		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/02	C	N		R	20060101
A61F-0002/28	C	N		R	20060101
A61F-0002/30	C	N		R	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606061000, 606061000, 606061000, 623017000

File Segment: CPI; EngPI
DWPI Class: D22; P31; P32
Manual Codes (CPI/A-N): D09-C01D

20/5/1 (Item 1 from file: 350) **Links**
Derwent WPIX

0014775381 *Drawing available*
WPI Acc no: 2005-123050/200513
XRAM Acc no: C2005-040844
XRPX Acc No: N2005-106170

Prosthesis for inserting between spinous processes of vertebra to prevent e.g. back pain comprises buckling parts at ends of spacing part to prevent prosthesis removal, and reinforcement part selectively placed at spacing and buckling parts

Patent Assignee: CHOI B (CHOI-I); CHOI B K (CHOI-I)
Inventor: CHOI B; CHOI B K

Patent Family (3 patents, 106 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005009300	A1	20050203	WO 2004KR1224	A	20040521	200513	B
KR 2005012077	A	20050131	KR 200351170	A	20030724	200535	E
KR 582768	B1	20060523	KR 200351170	A	20030724	200708	E

Priority Applications (no., kind, date): KR 200351170 A 20030724

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2005009300	A1	EN	39	34		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
KR 582768	B1	KO			Previously issued patent	KR 2005012077

Alerting Abstract WO A1

NOVELTY - A prosthesis (1) comprises a spacing part (4) to be placed between upper and lower spinous processes (3) of a vertebra (2), and buckling parts (5) placed at both ends of the spacing part to prevent the prosthesis from being removed. A reinforcement part (6) is selectively placed at the spacing part and the buckling parts.
USE - To be inserted between spinous processes of a vertebra (claimed) for preventing back pain, arthritis and neuralgia, caused by excessive movement of the vertebra that have degenerated.
ADVANTAGE - The prosthesis prevents the vertebra from excessively extending backwards between the spinous processes of the vertebra. The prosthesis is capable being percutaneously inserted through a narrow tube such as an **endoscope** without requiring a large incision, thus reducing the size of the scar, preventing muscle damage and

preserving the interspinous ligaments.
DESCRIPTION OF DRAWINGS - The figure shows a top plane view of the vertebra, where **prosthesis** is to be inserted **between** the **spinous processes** of the **vertebra**.
1 Prosthesis
2 Vertebra
3 Upper and lower **spinous processes**
4 Spacing part
5 Buckling parts
6 Reinforcement part
7 Expandable body
8 Internal chambers.

Title Terms /Index Terms/Additional Words: PROSTHESIS; INSERT; SPINE; PROCESS; VERTEBRA; PREVENT; BACK; PAIN; COMPRISE; BUCKLE; PART; END; SPACE; REMOVE; REINFORCED; SELECT; PLACE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/44			Main		"Version 7"
A61B-0017/00	A	N		R	20060101
A61B-0017/70	A	I		R	20060101
A61B-0017/00	C	N		R	20060101
A61B-0017/70	C	I		R	20060101

File Segment: CPI; EngPI
DWPI Class: D22; P31; P32
Manual Codes (CPI/A-N): D09-C01D

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